

FIG. 1

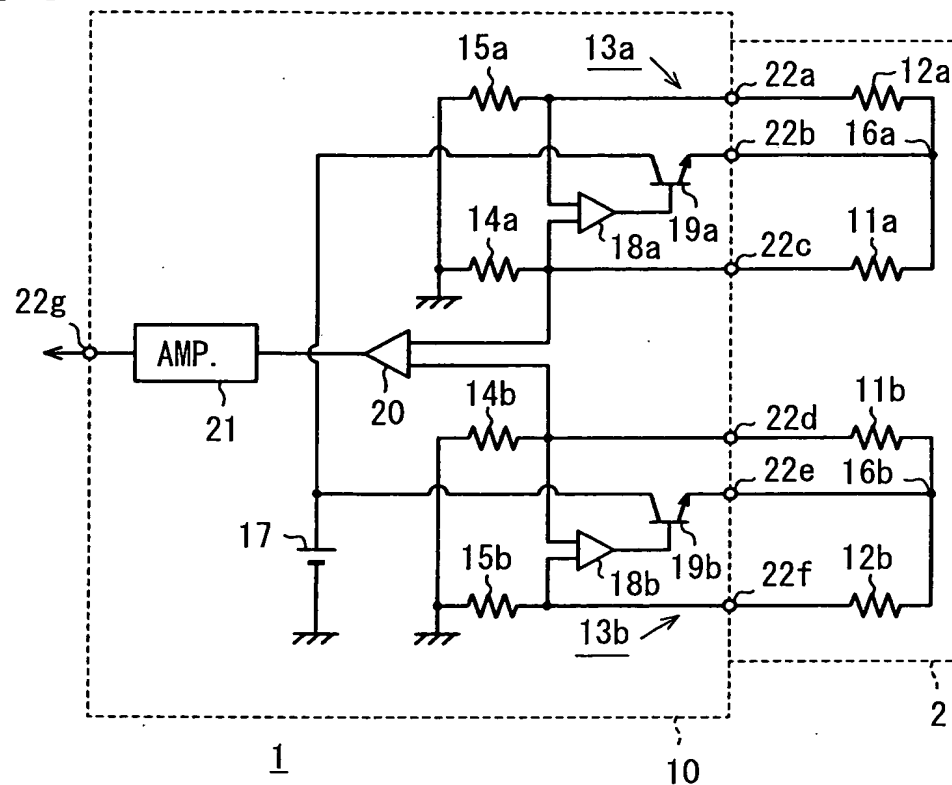


FIG. 2

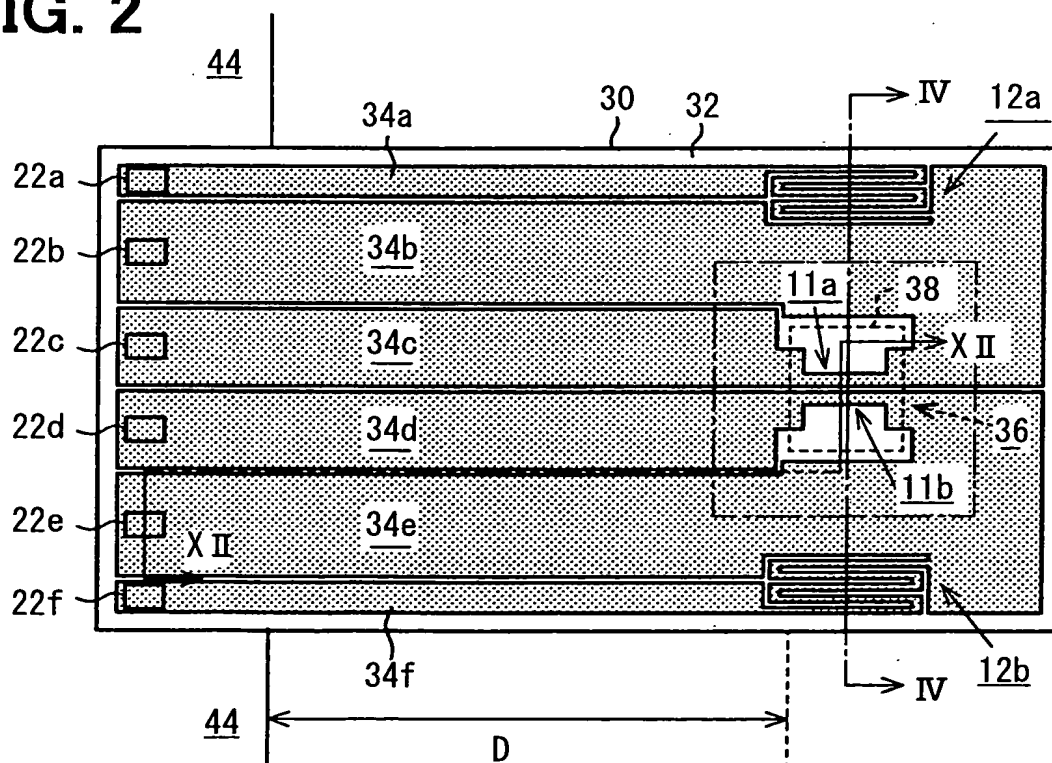


FIG. 3A

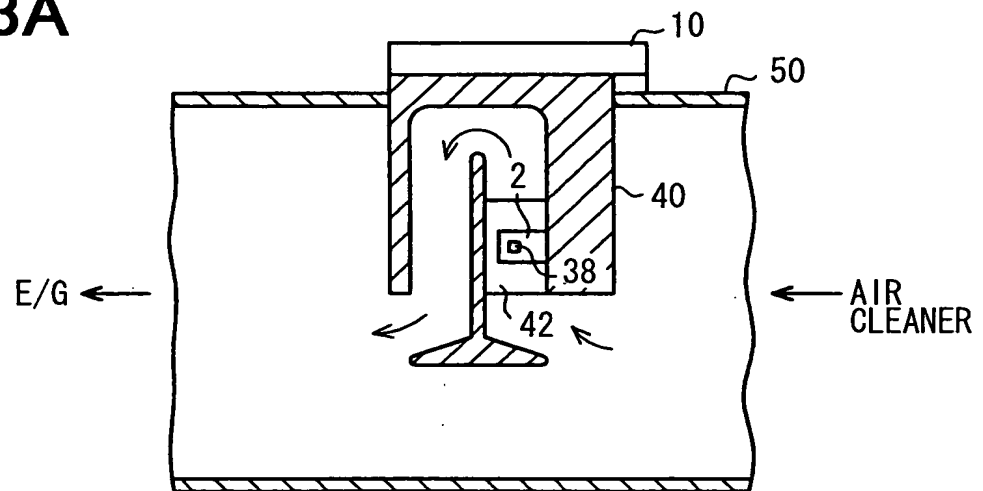


FIG. 3B

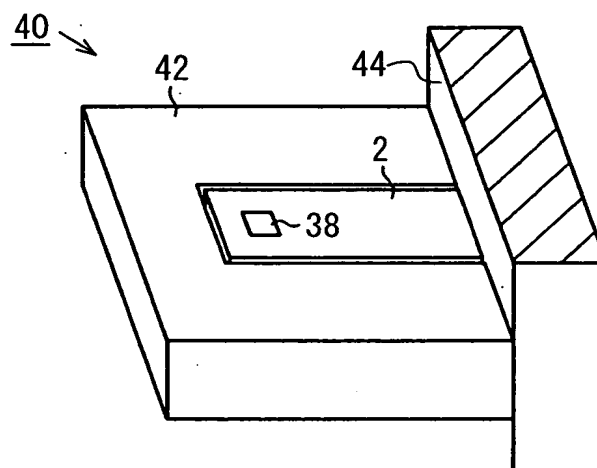


FIG. 3C

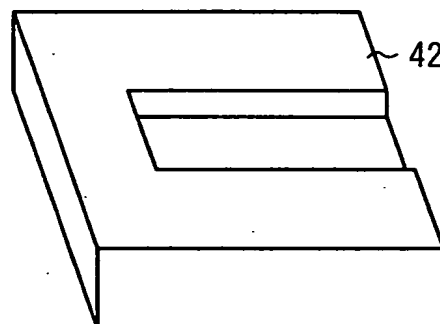


FIG. 4

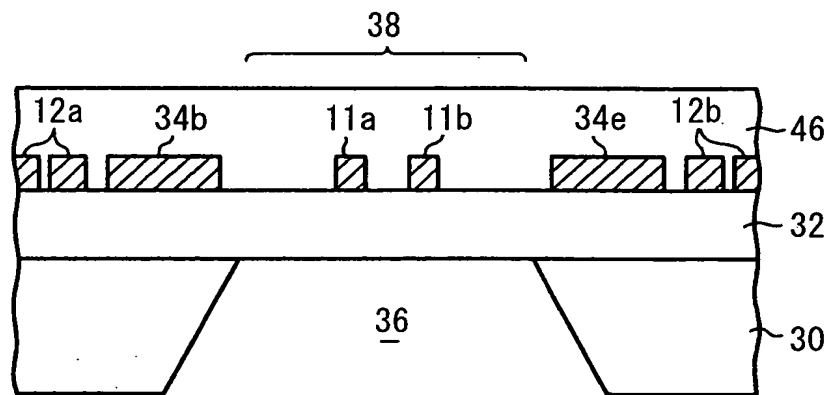


FIG. 5

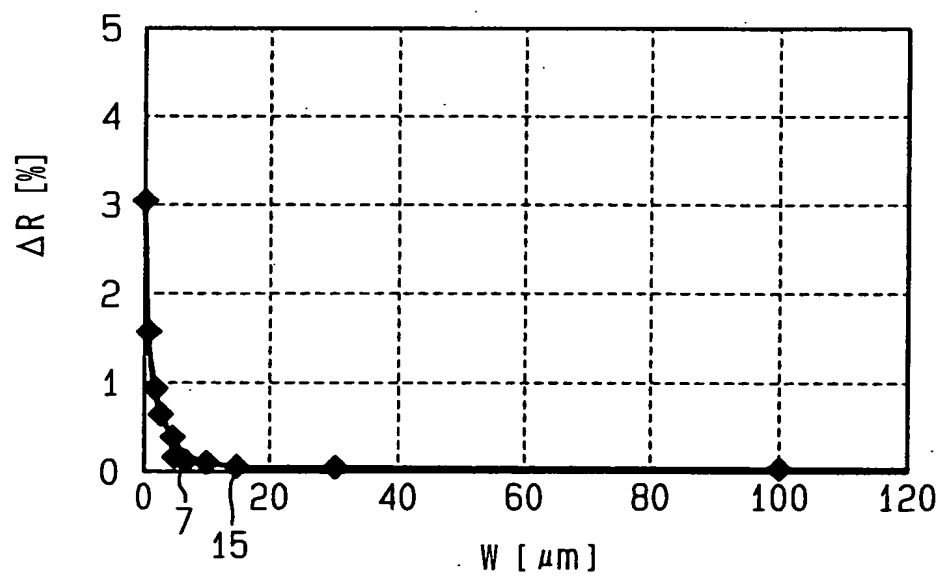


FIG. 6

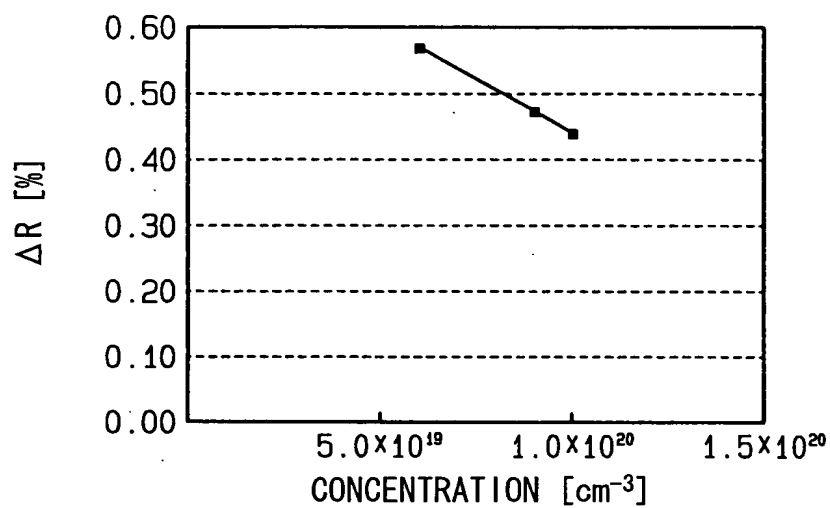


FIG. 7

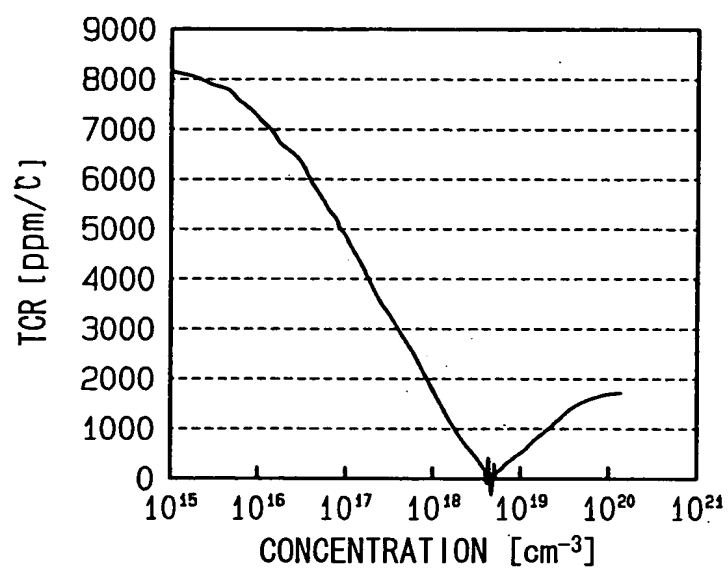


FIG. 8

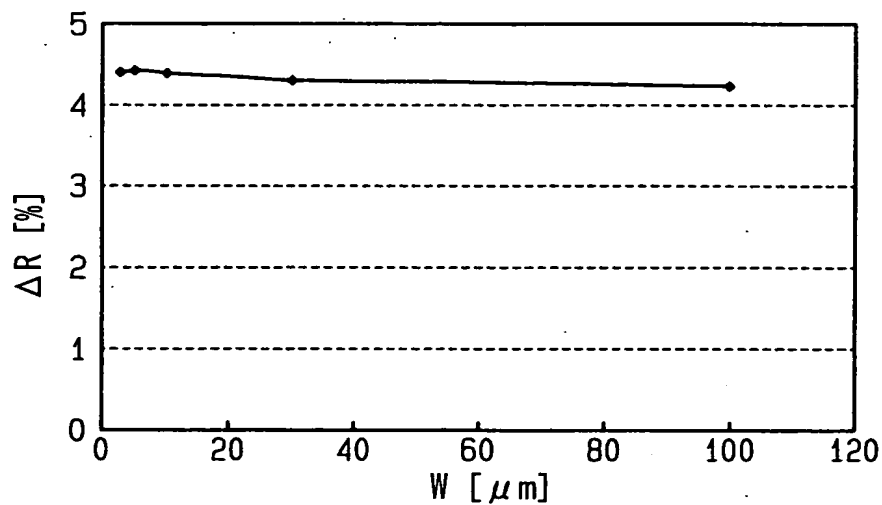


FIG. 9A

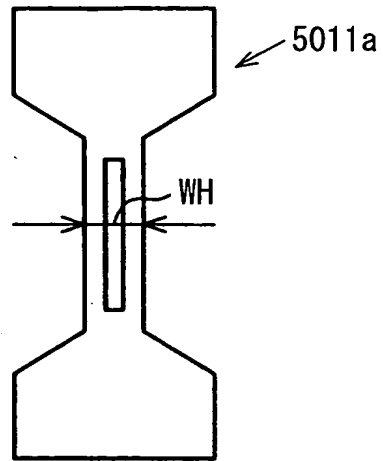


FIG. 9B

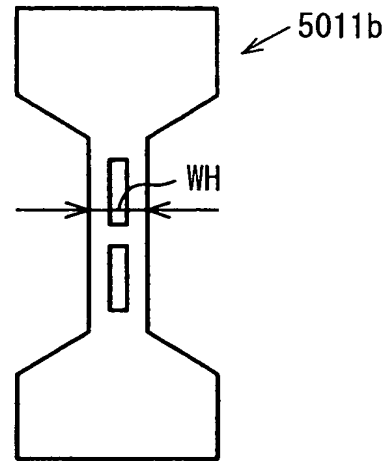


FIG. 9C

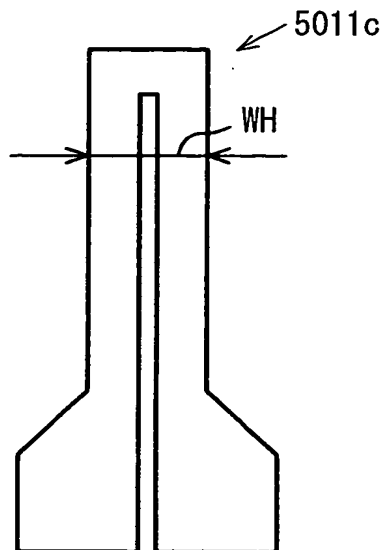


FIG. 9D

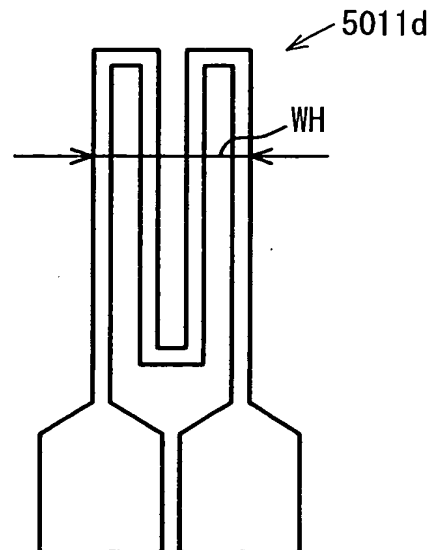


FIG. 10

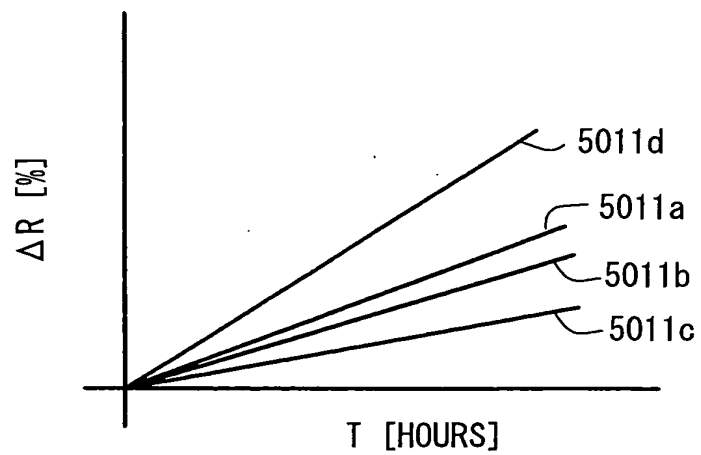


FIG. 11

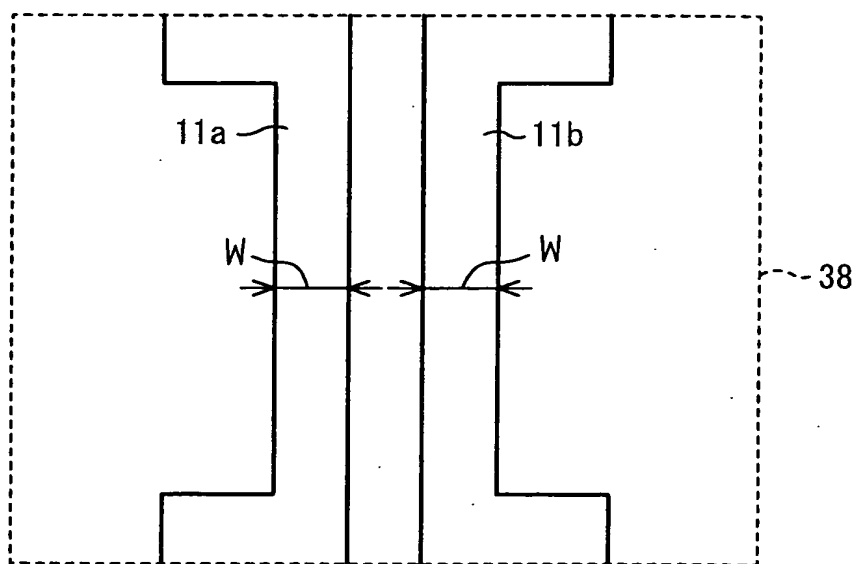


FIG. 12A

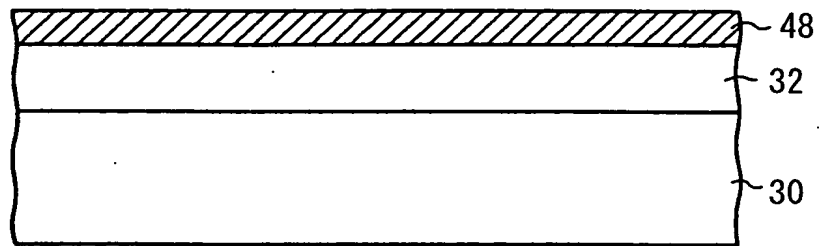


FIG. 12B

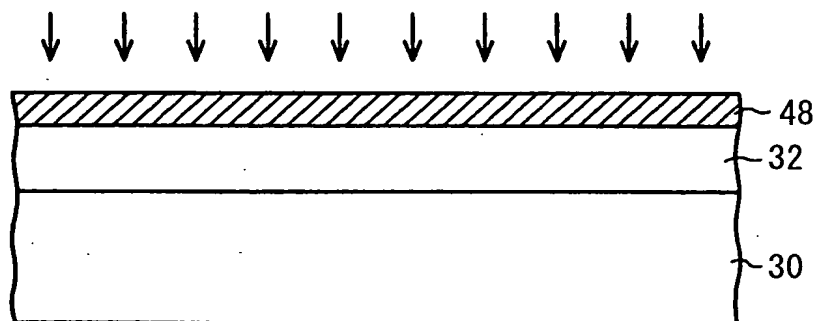


FIG. 12C

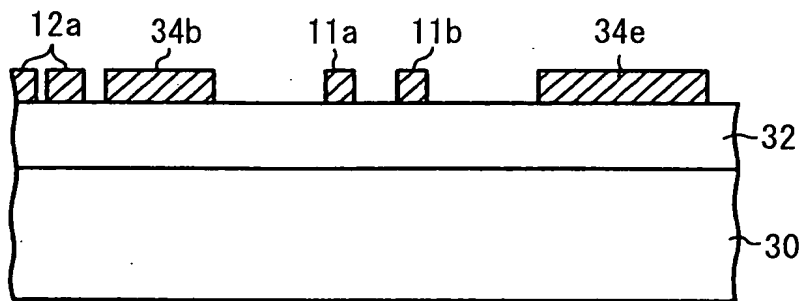


FIG. 12D

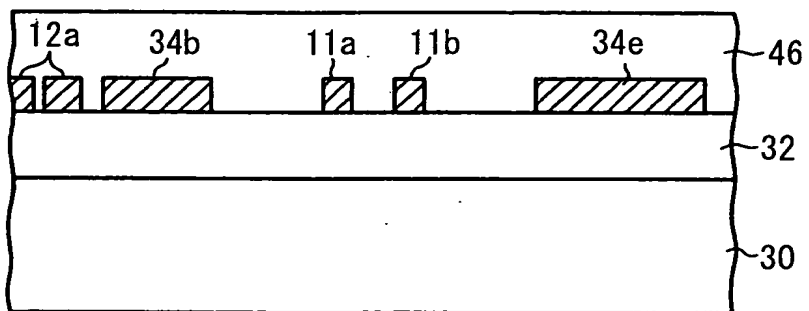


FIG. 13A

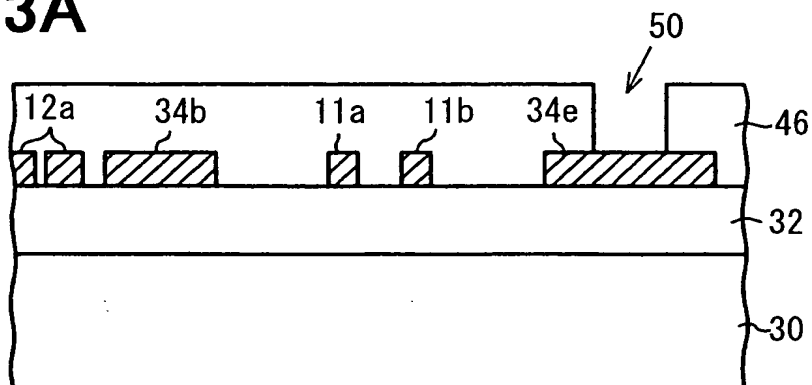


FIG. 13B

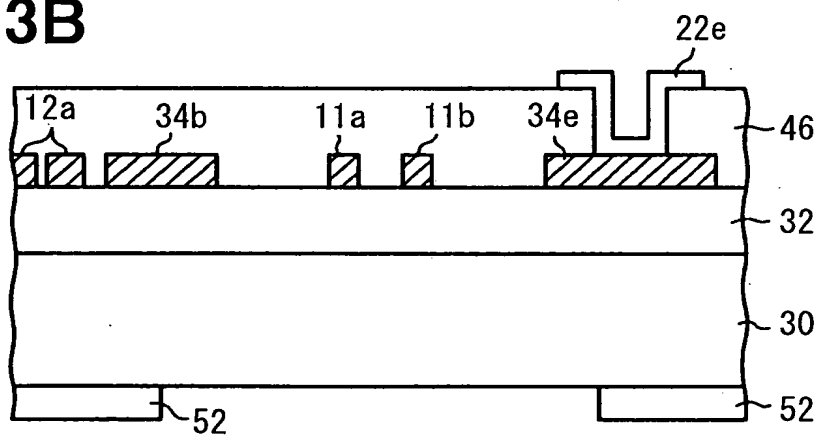


FIG. 13C

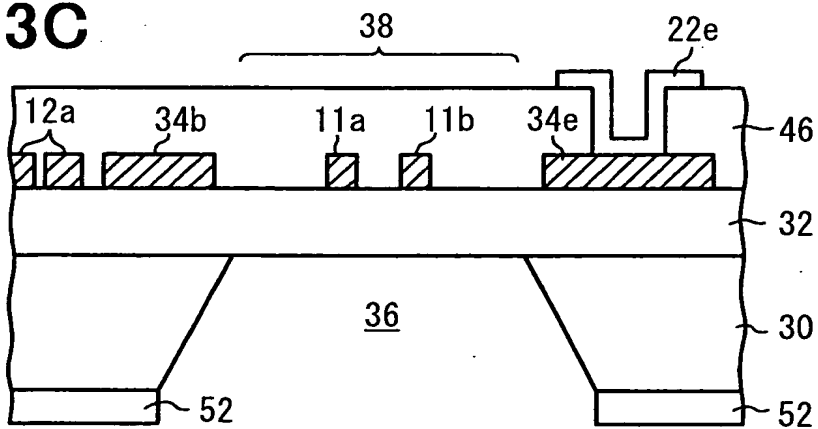


FIG. 14

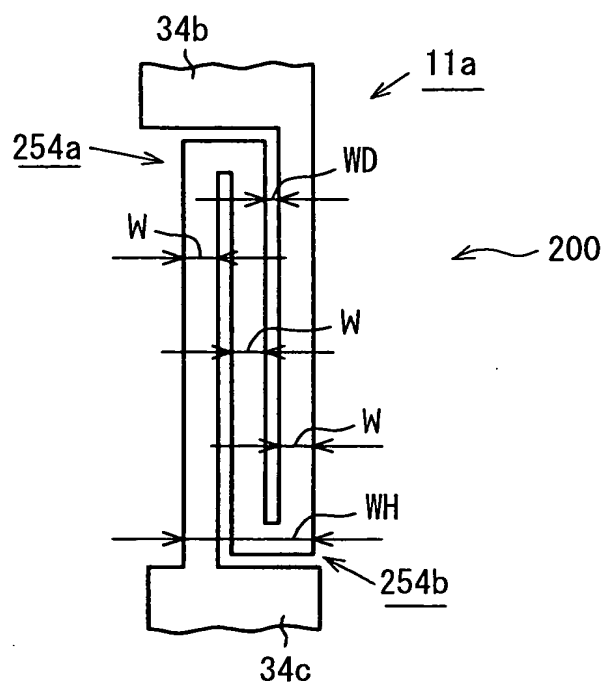


FIG. 15

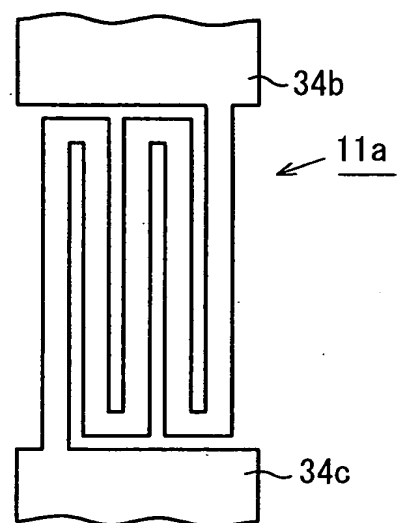


FIG. 16

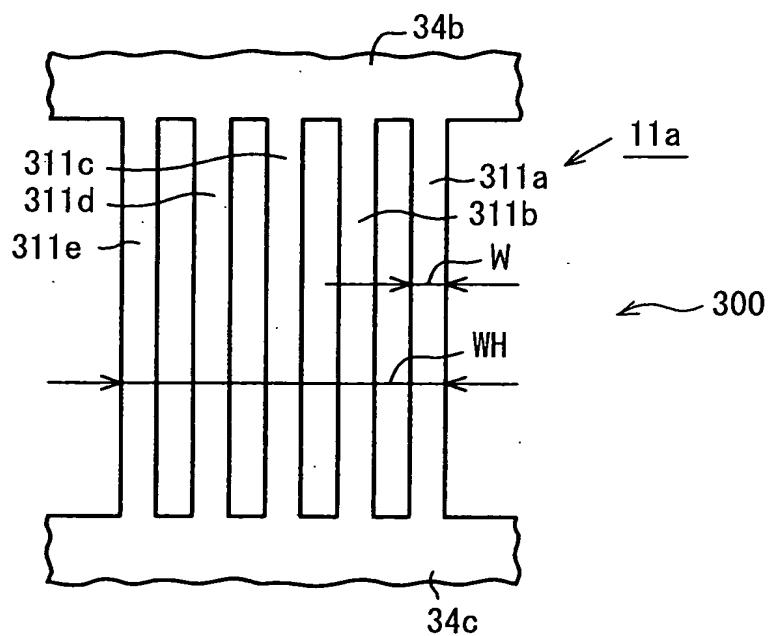


FIG. 17

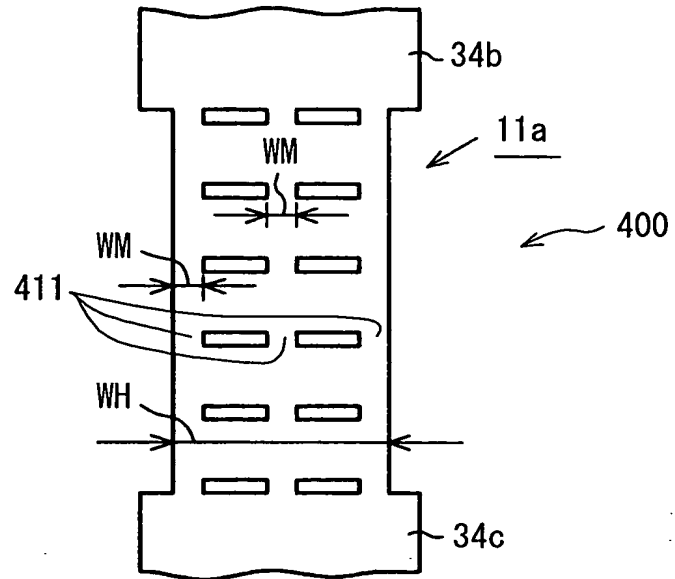


FIG. 18

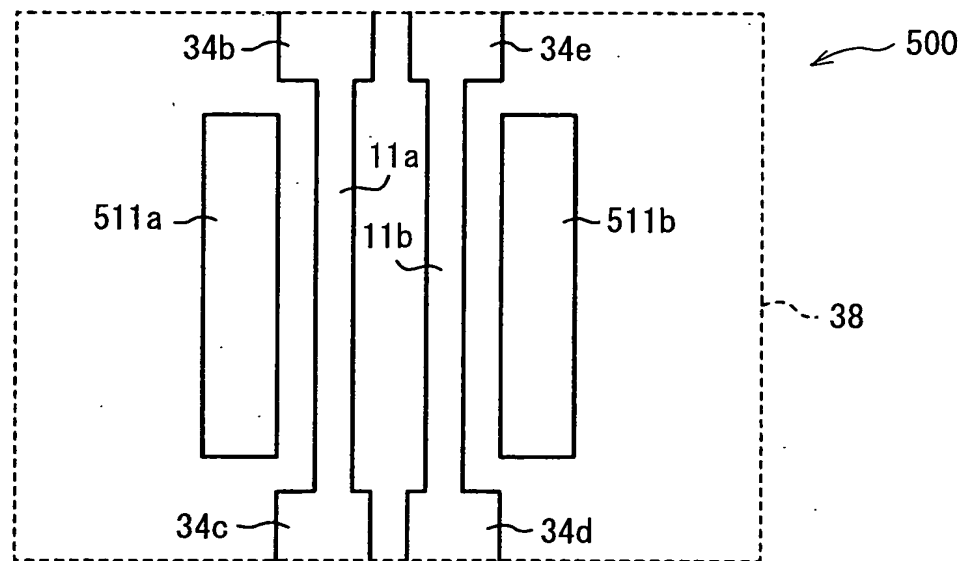


FIG. 19

| MATERIAL | K [W/(m·k)] | ρ [$\Omega \cdot m$] | $K\rho$ [W· Ω /k] |
|----------|------------------|--------------------------------|-----------------------------|
| Al | 236 | 5.50×10^{-8} | 1.30×10^{-5} |
| W | 177 | 4.90×10^{-8} | 8.67×10^{-6} |
| Pt | 72 | 9.81×10^{-8} | 7.06×10^{-6} |
| Cu | 403 | 1.55×10^{-8} | 6.25×10^{-6} |
| Si | 168 | 1.00×10^{-5} | 1.68×10^{-3} |

FIG. 21

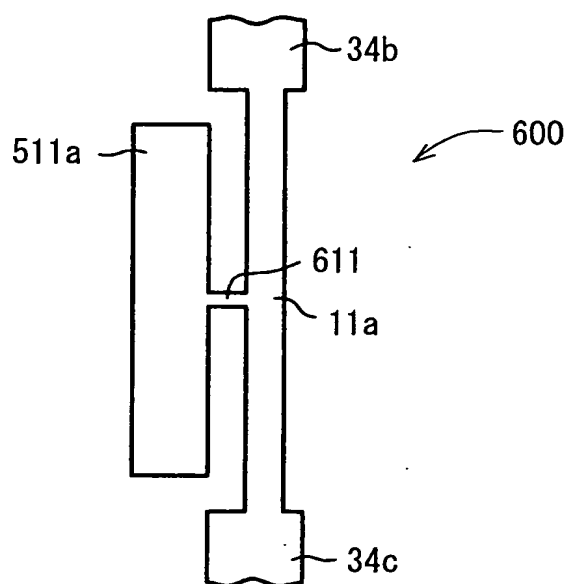


FIG. 20A

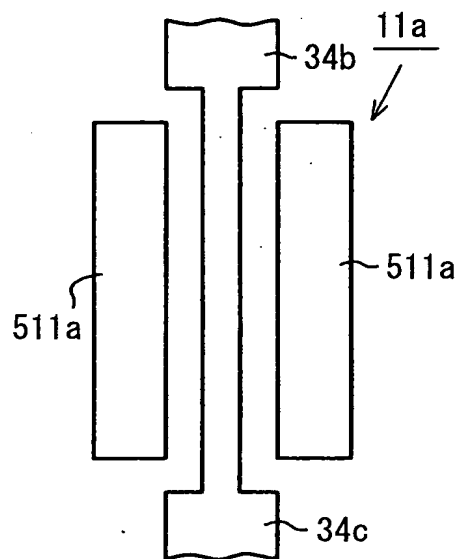


FIG. 20B

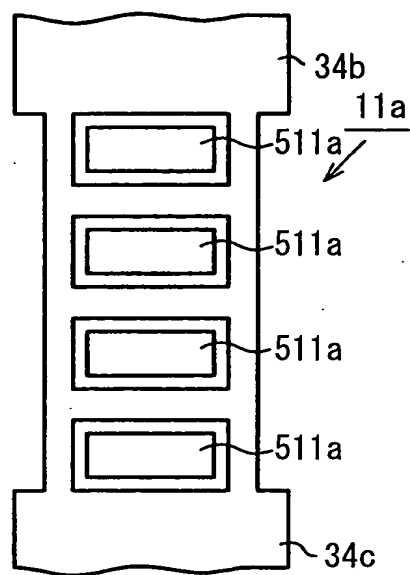


FIG. 20C

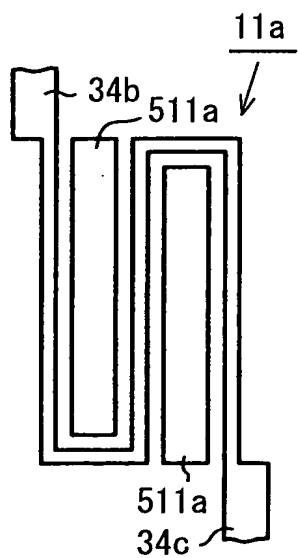


FIG. 20D

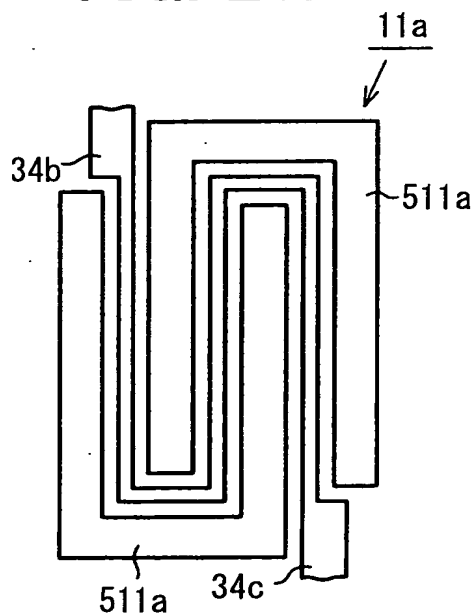


FIG. 22A

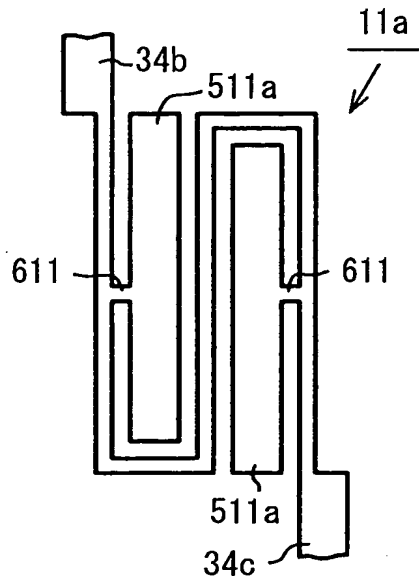


FIG. 22B

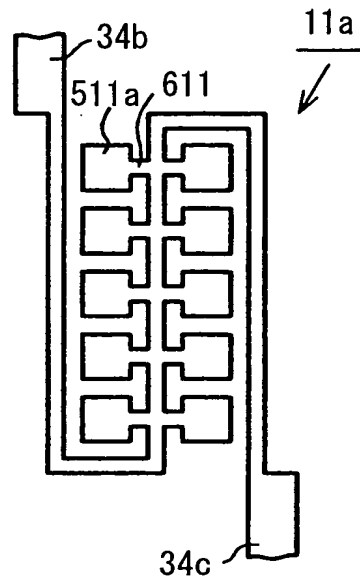


FIG. 22C

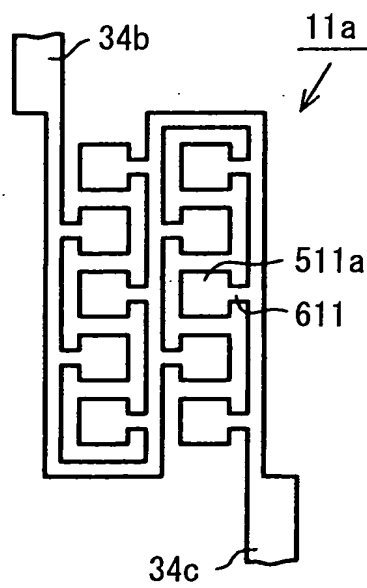


FIG. 23

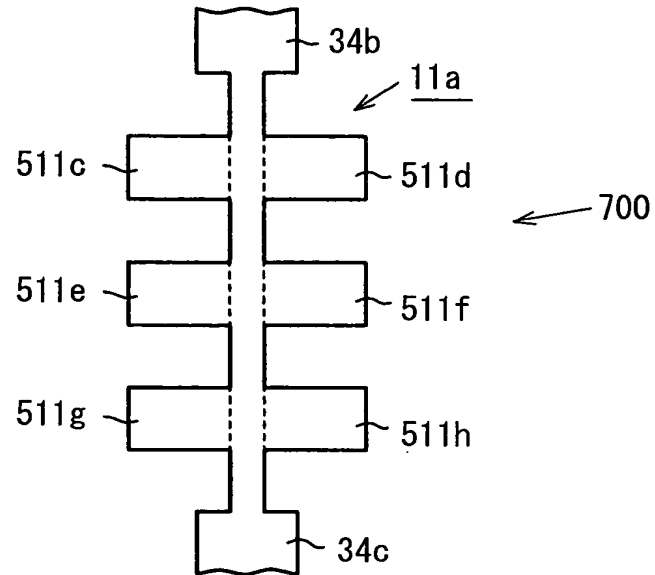


FIG. 24

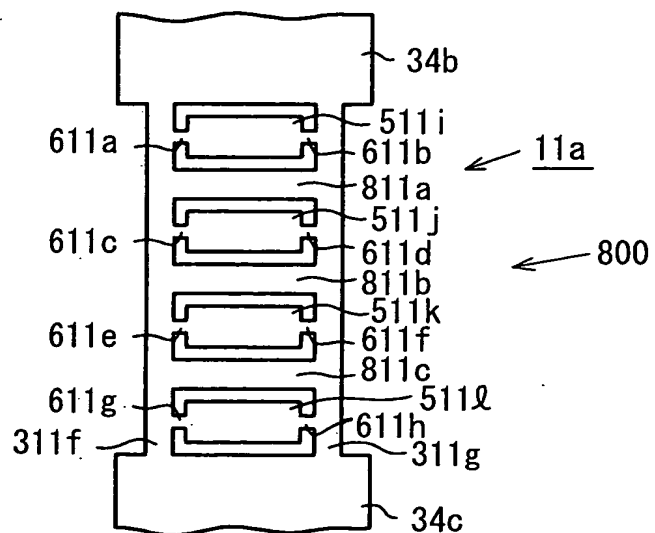


FIG. 25

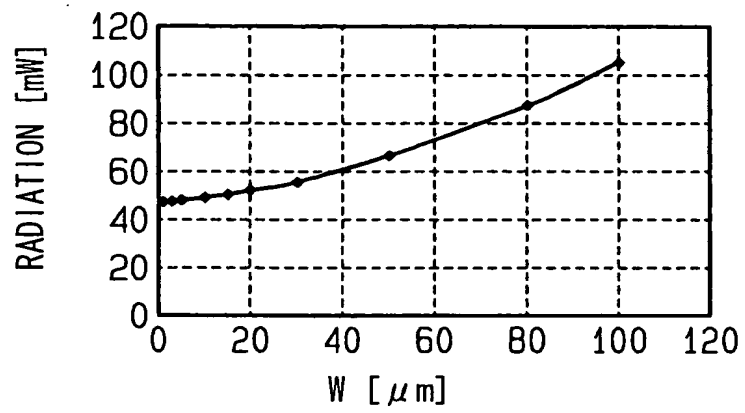


FIG. 26

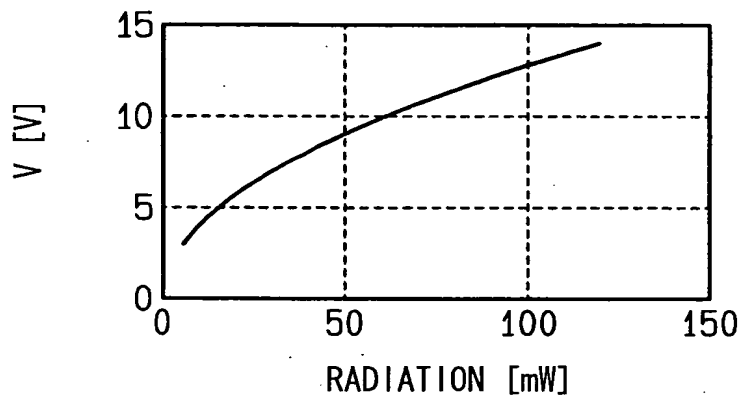


FIG. 27

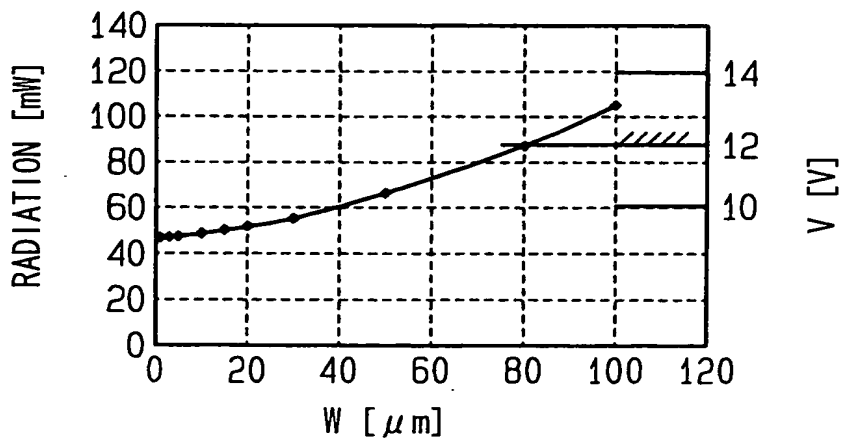


FIG. 28

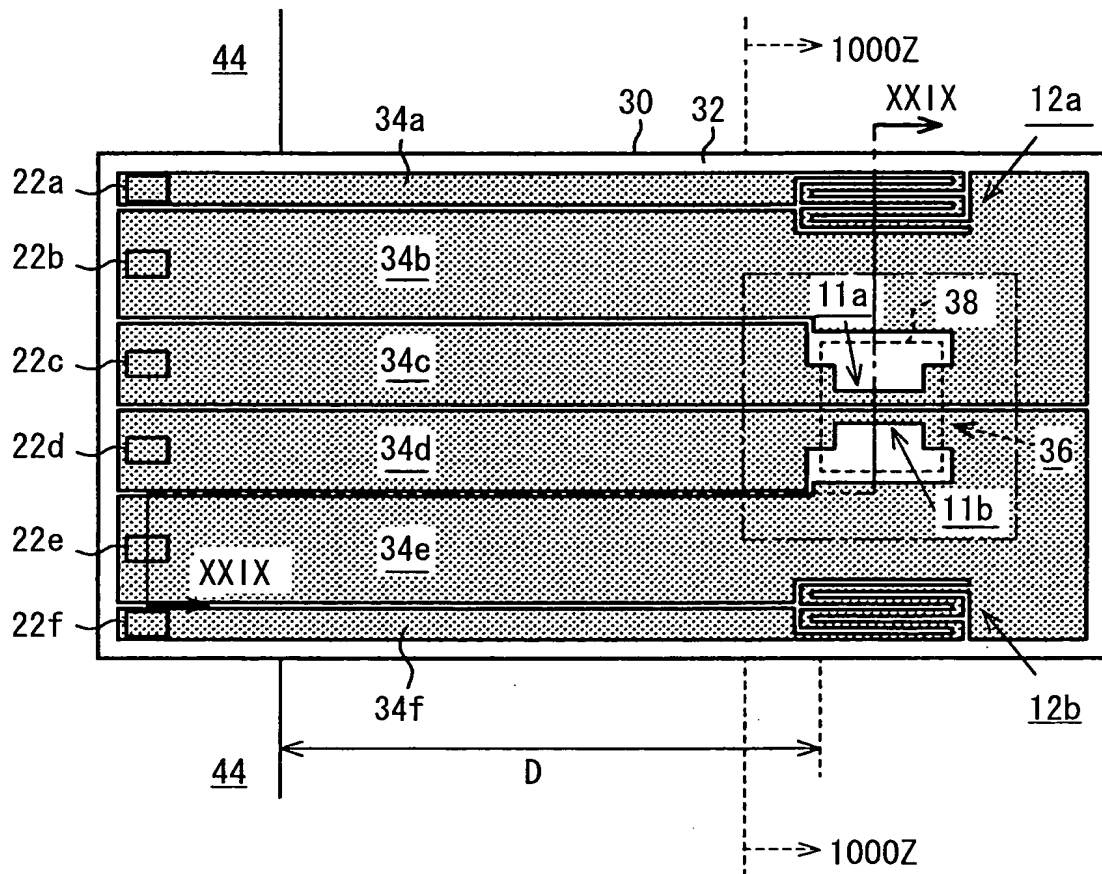


FIG. 29

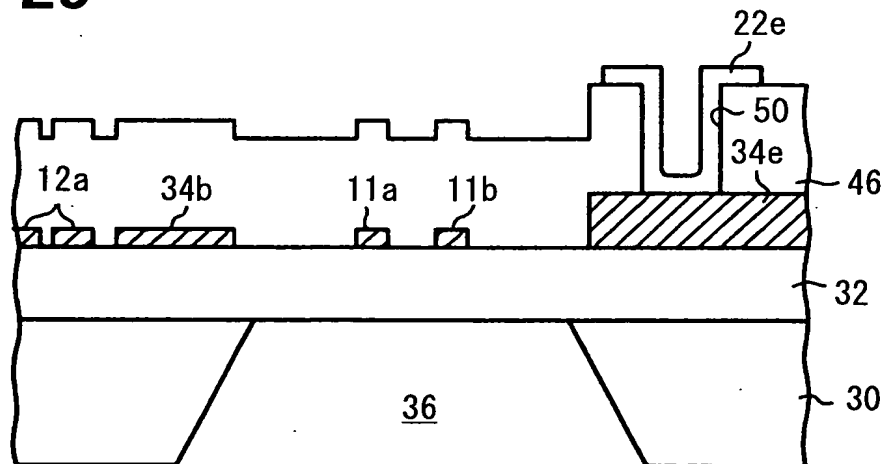


FIG. 30A

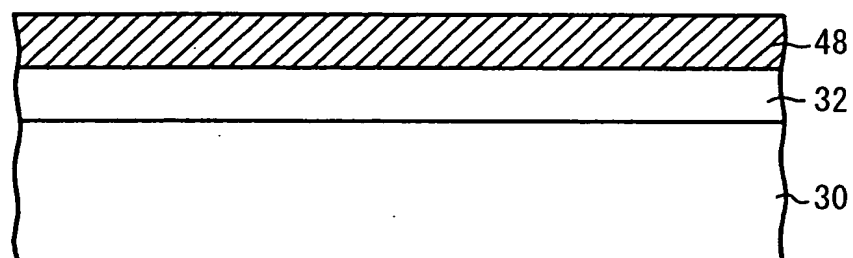


FIG. 30B

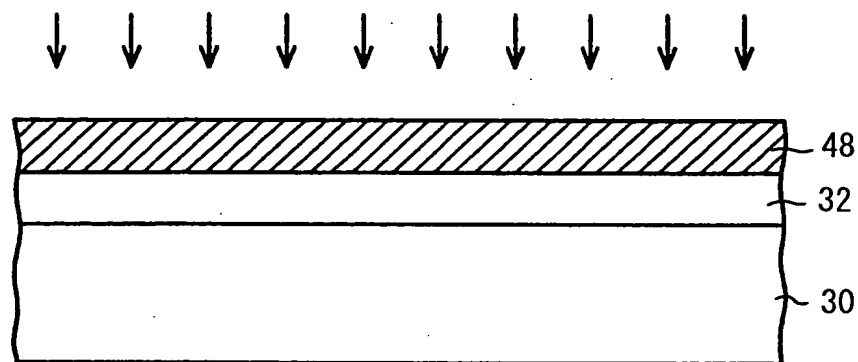


FIG. 30C

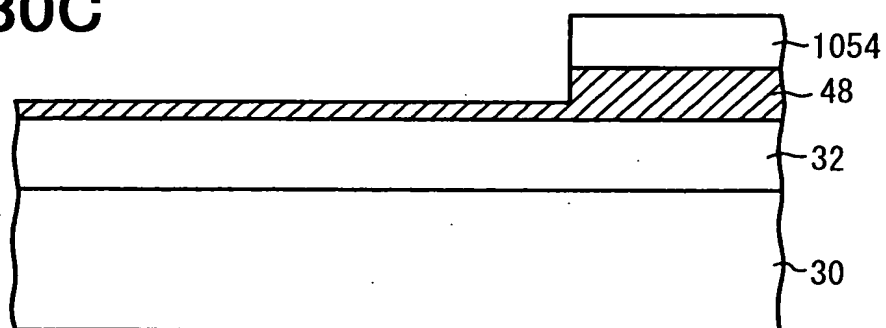


FIG. 31A

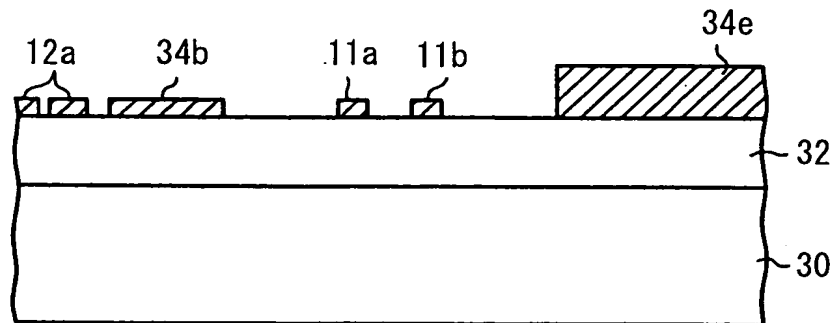


FIG. 31B

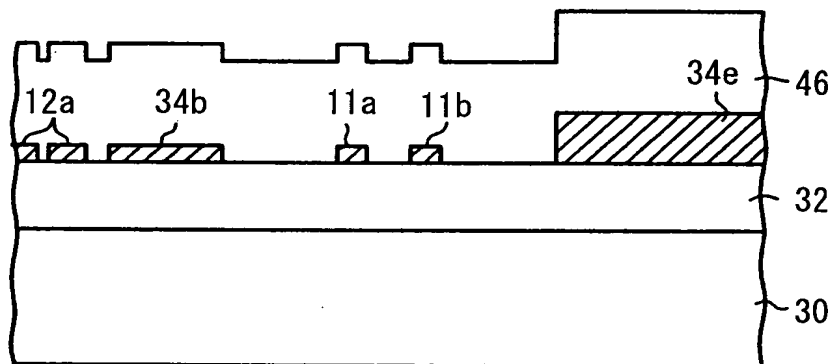


FIG. 31C

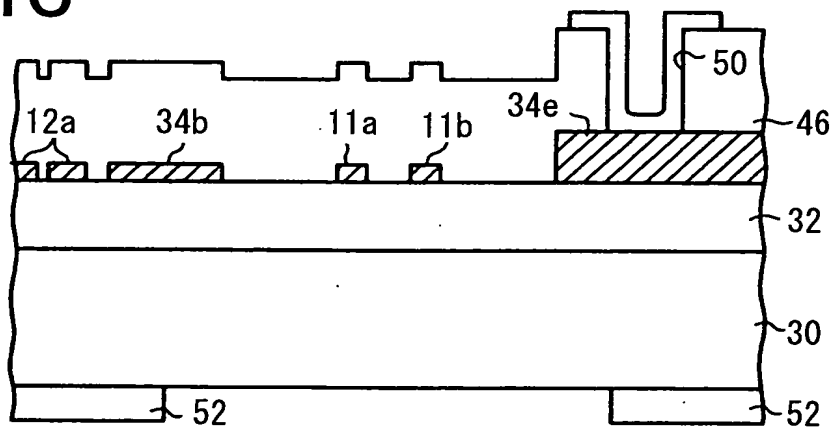


FIG. 32

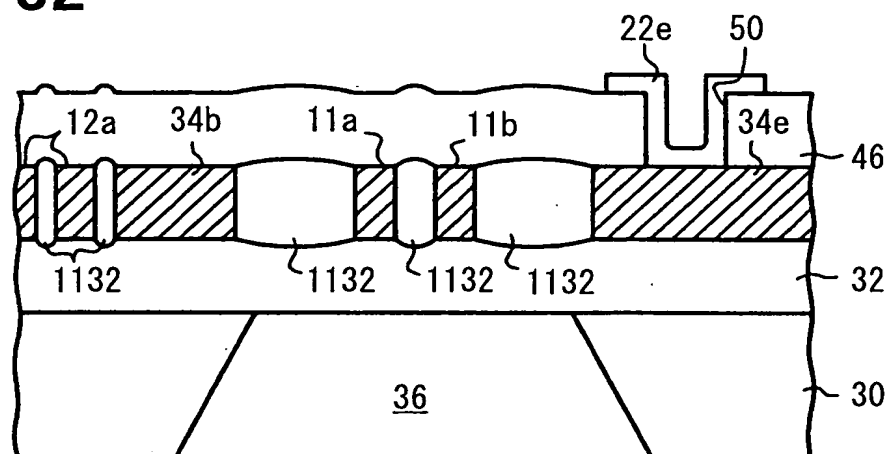


FIG. 35

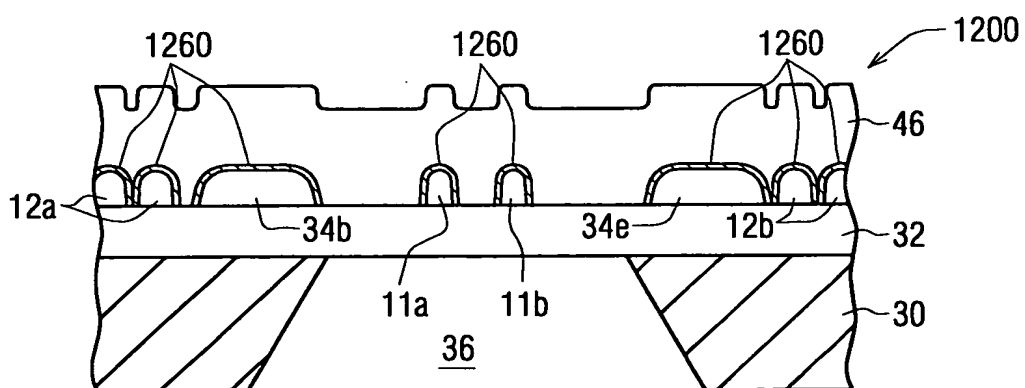


FIG. 33A

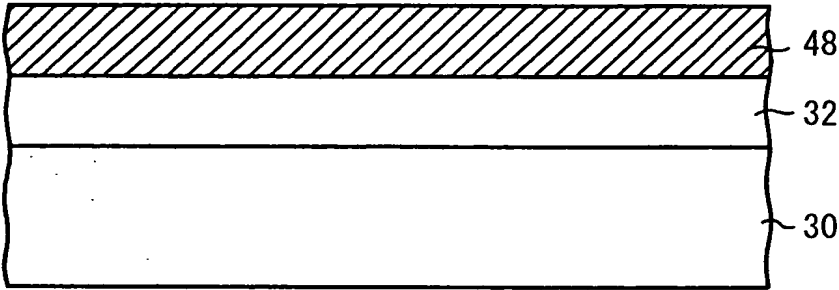


FIG. 33B

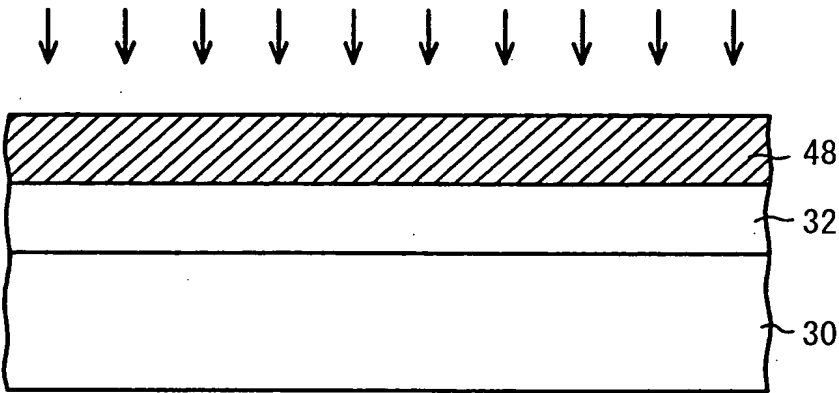


FIG. 33C

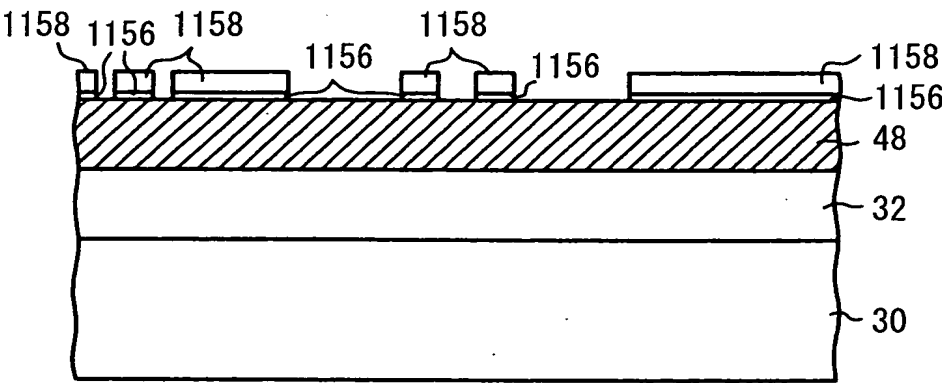


FIG. 34A

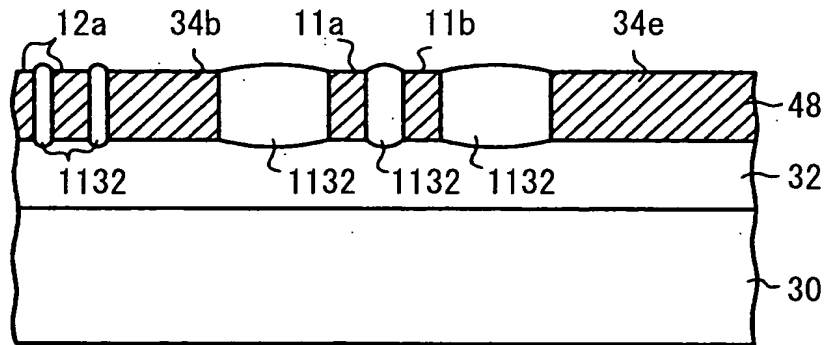


FIG. 34B

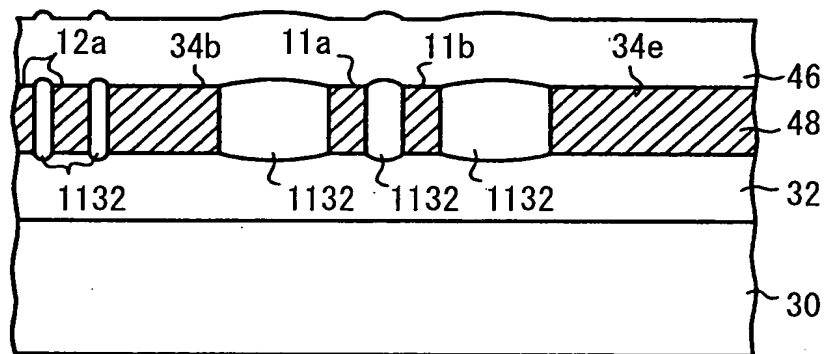


FIG. 34C

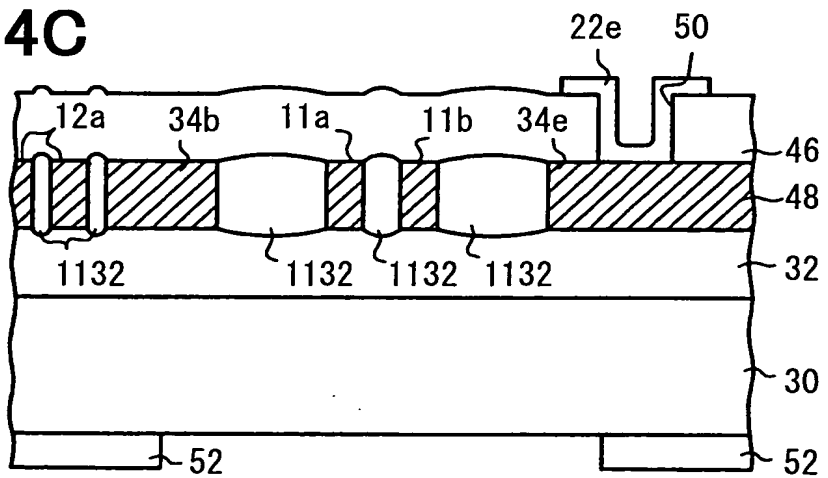


FIG. 36A



FIG. 36B

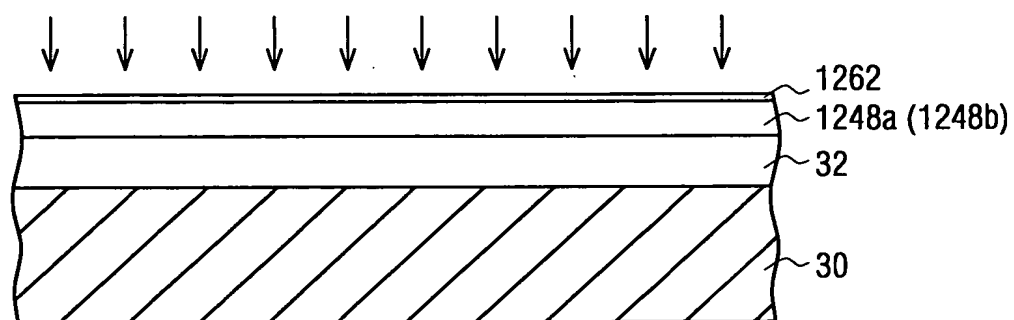


FIG. 36C

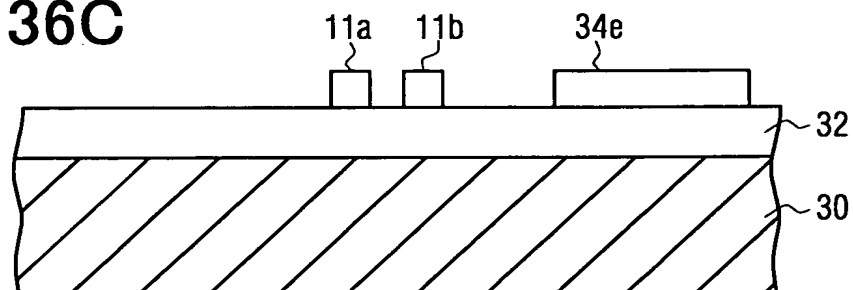


FIG. 36D

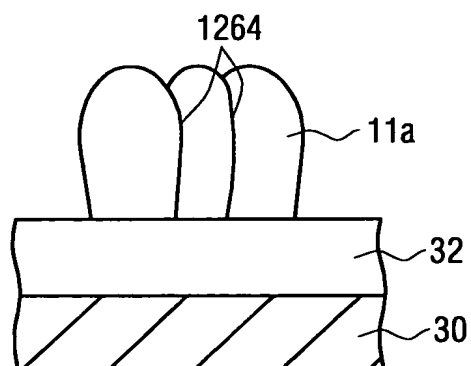


FIG. 37A

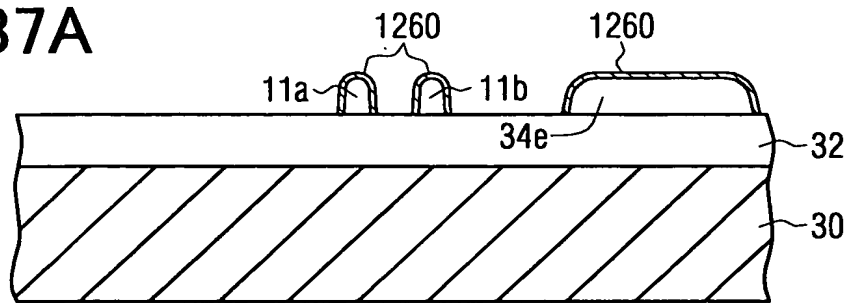


FIG. 37B

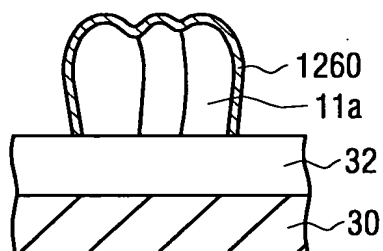


FIG. 37C

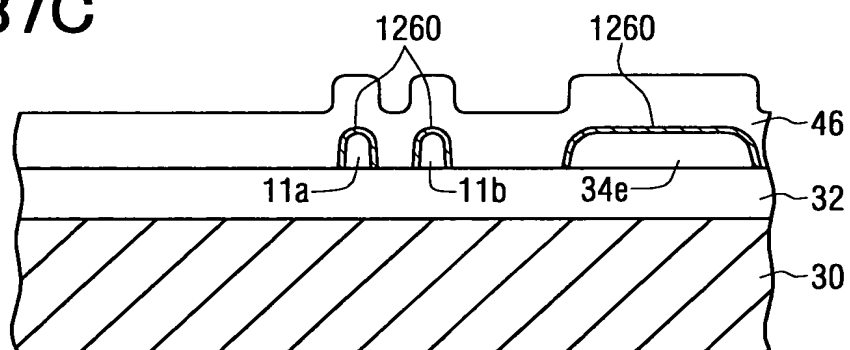
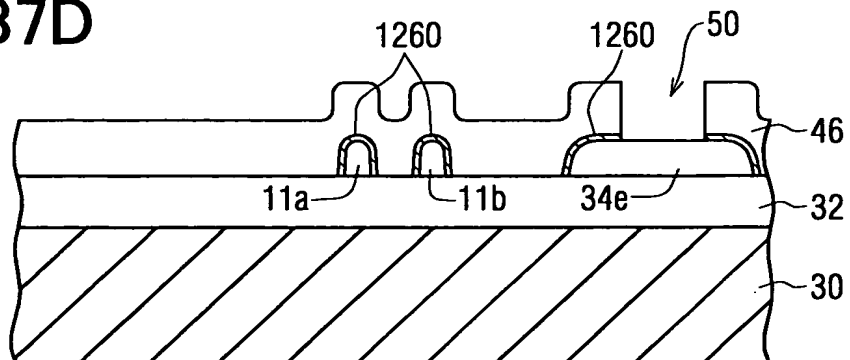


FIG. 37D



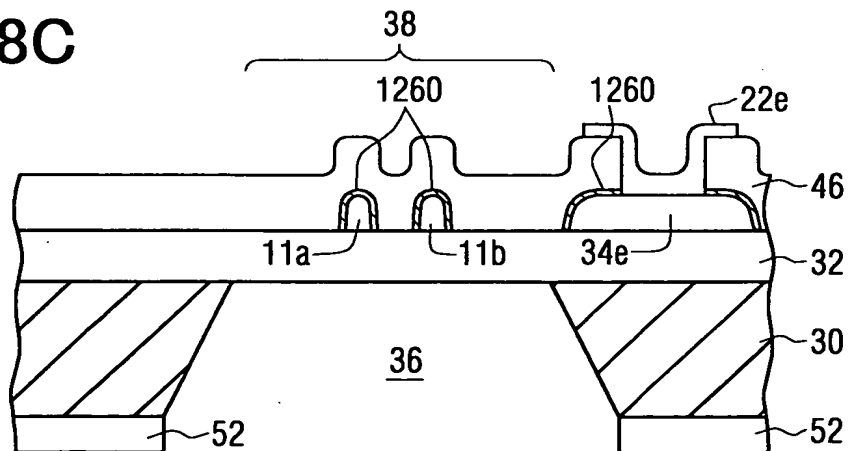


FIG. 39

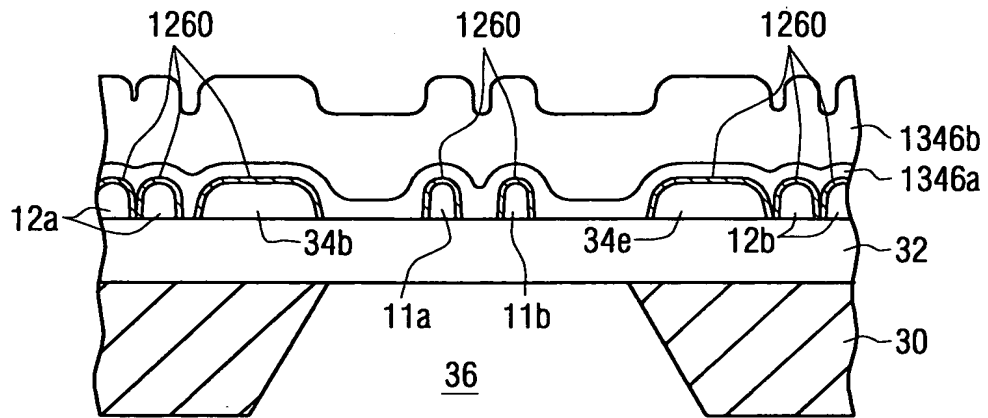


FIG. 40A

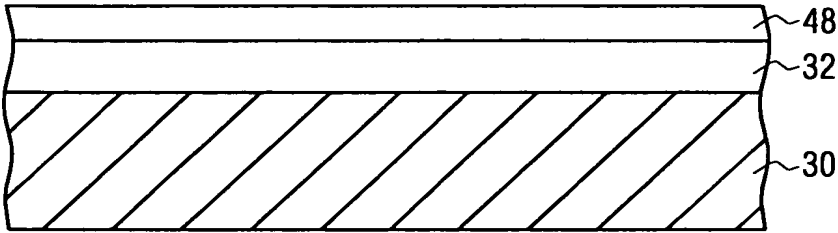


FIG. 40B

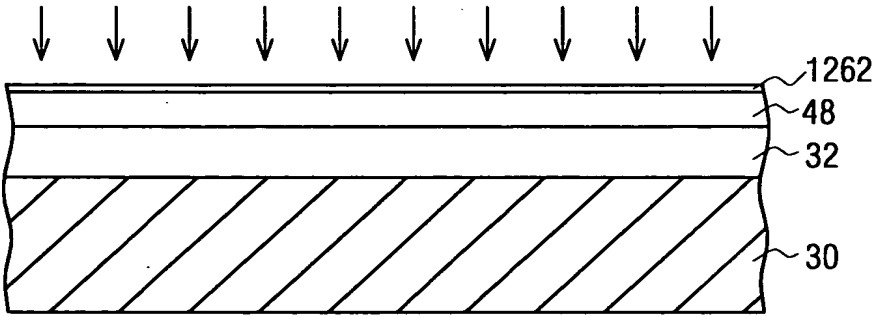


FIG. 40C

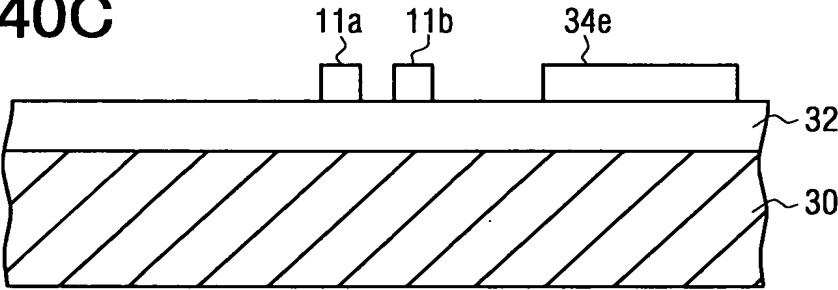


FIG. 40D

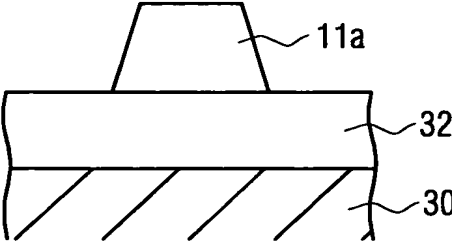


FIG. 41A

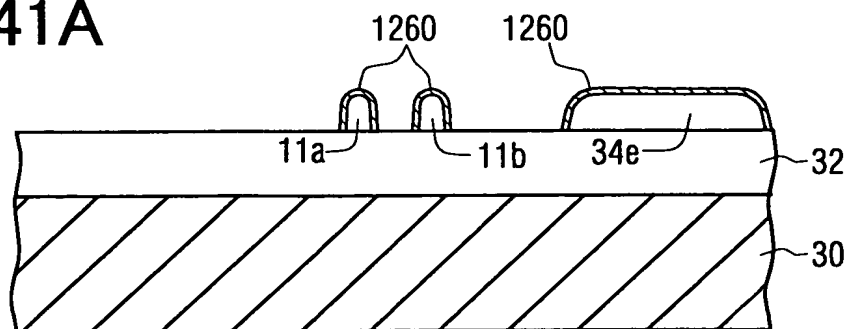


FIG. 41B

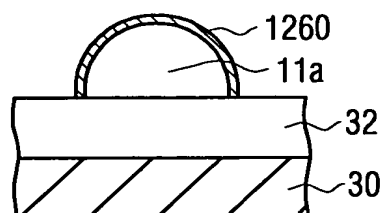


FIG. 41C

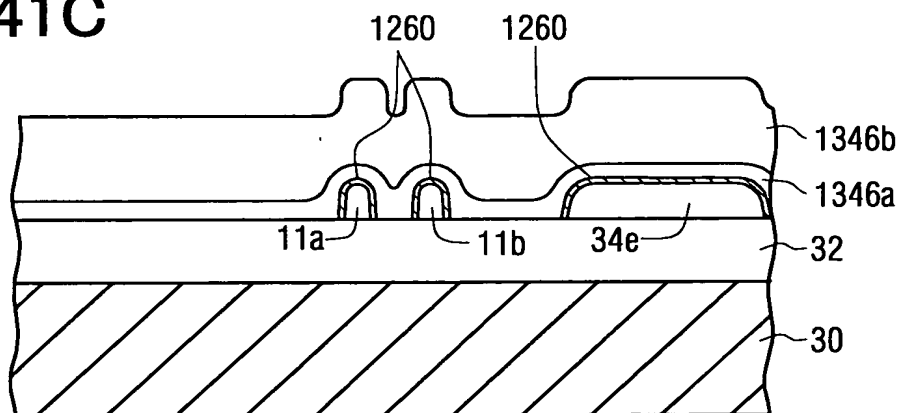


FIG. 41D

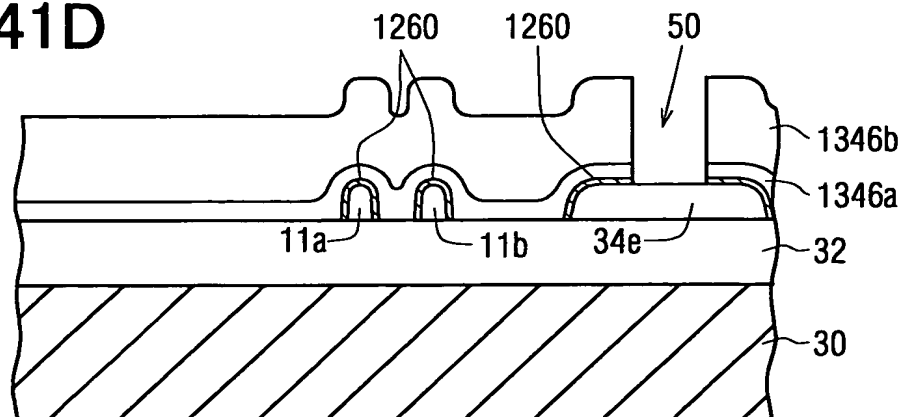


FIG. 42A

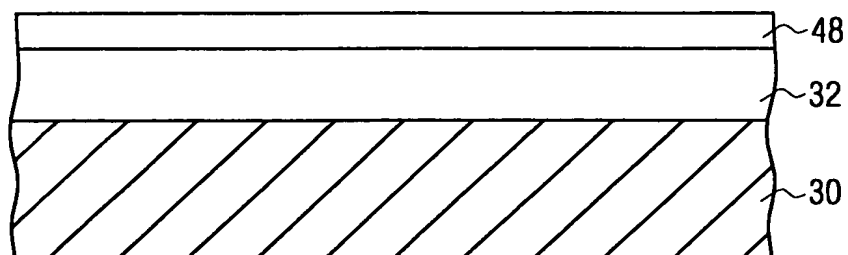


FIG. 42B

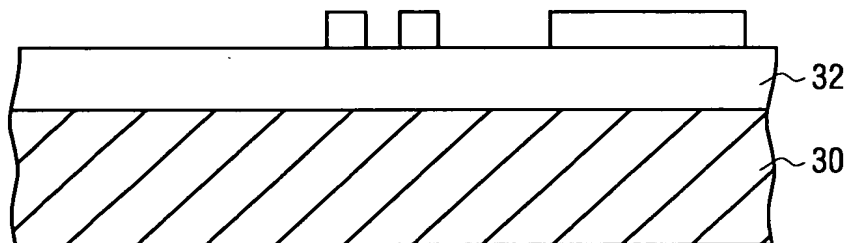


FIG. 42C

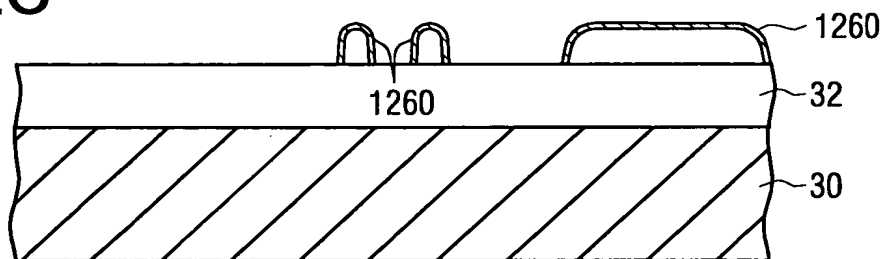


FIG. 42D

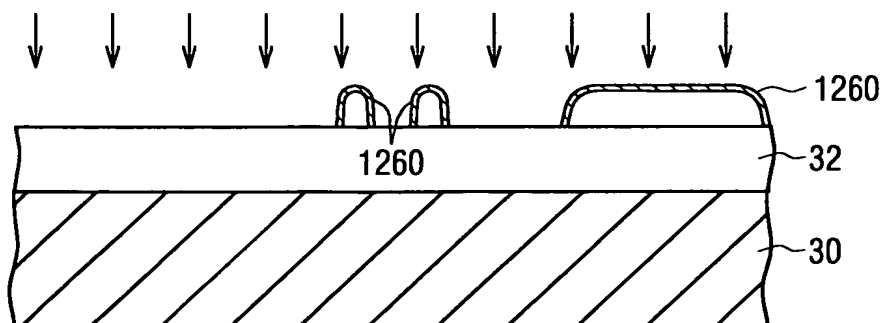


FIG. 43

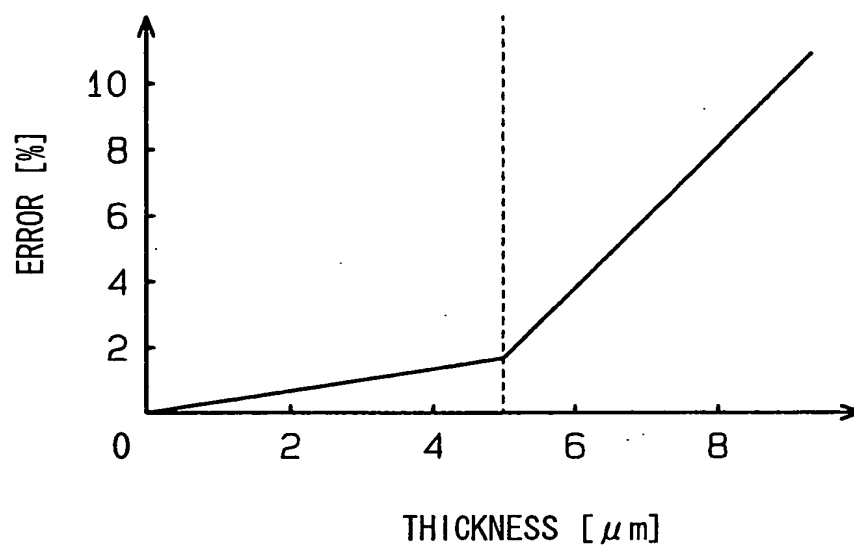


FIG. 44A

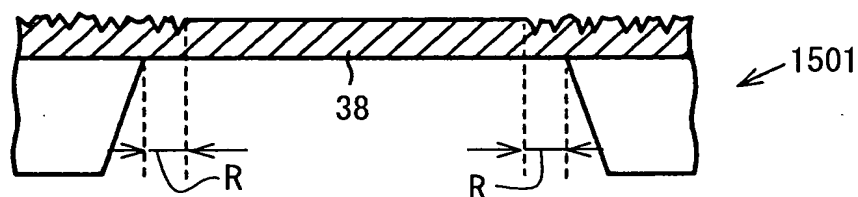


FIG. 44B

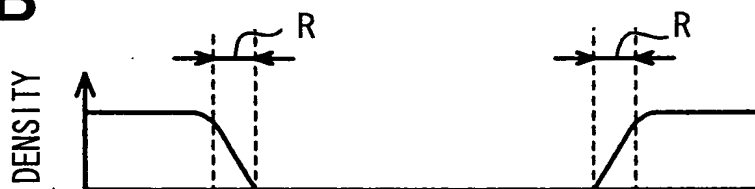


FIG. 44C

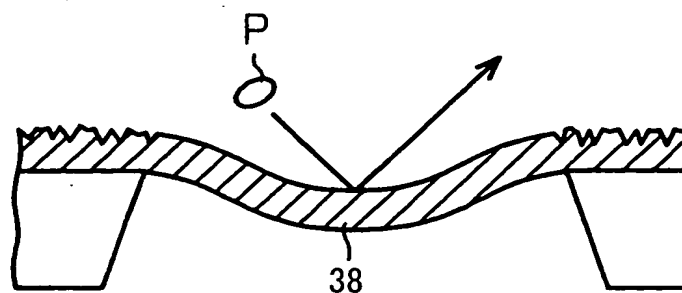


FIG. 45

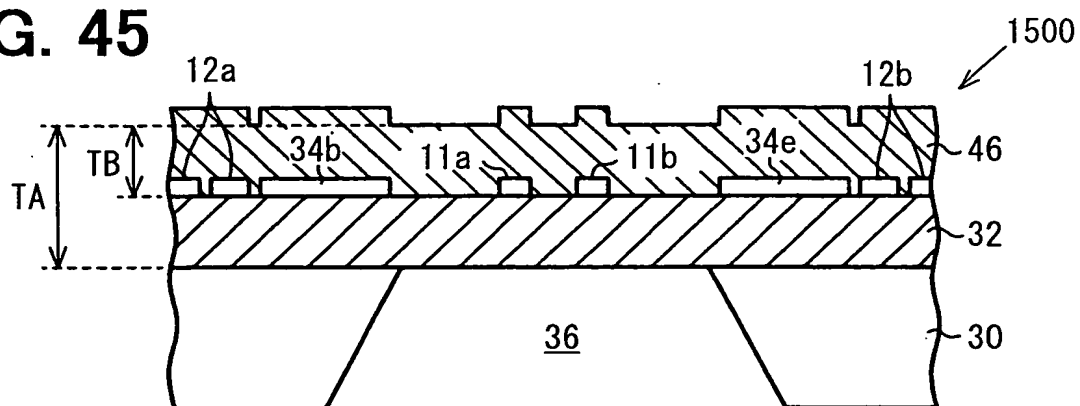


FIG. 46

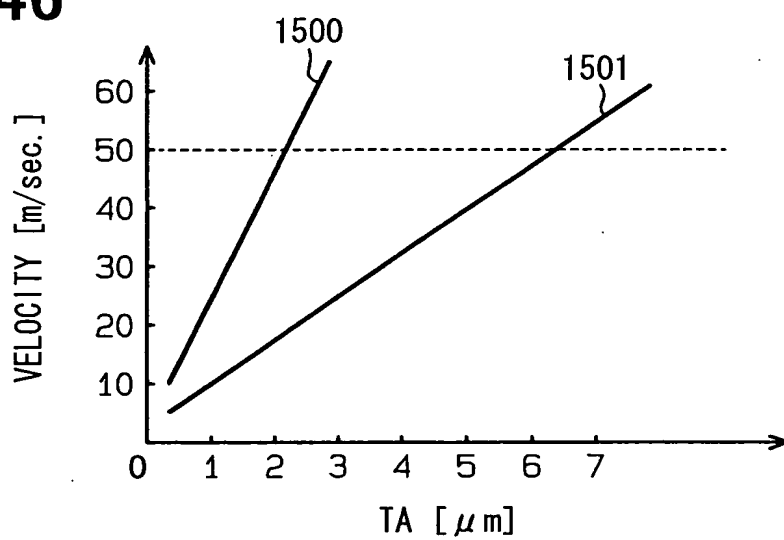


FIG. 47

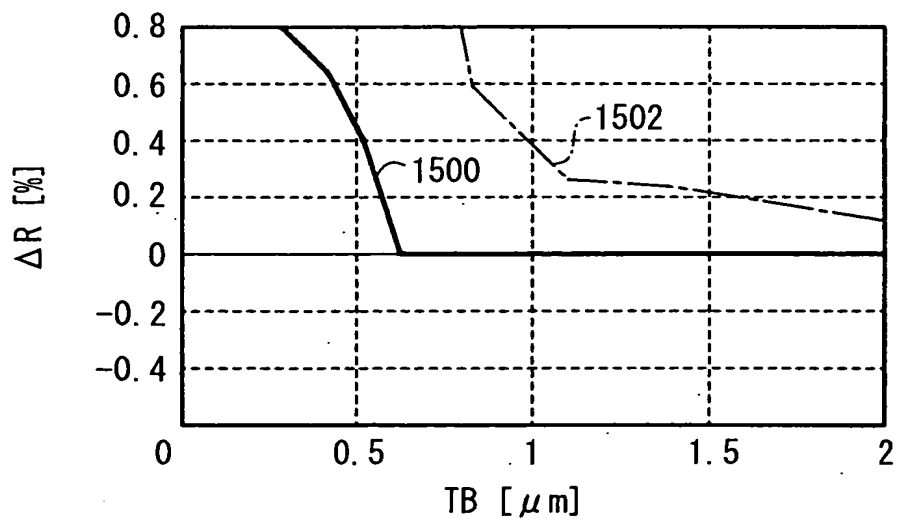


FIG. 48A

| TEMP. (°C) \ RATIO | 1/3 | 1/1 | 2/1 | 4/1 | 6/1 | 8/1 | 10/1 |
|-----------------------|-----|-----|-----|-----|-----|-----|------|
| 750 | x | x | x | ○ | ○ | ○ | x x |
| 800 | x | x | ○ | ○ | ○ | x x | |
| 850 | x | ○ | ○ | ○ | x x | | |

FIG. 48B

| TEMP. (°C) \ RATIO | 1/3 | 1/1 | 2/1 | 4/1 | 6/1 | 8/1 | 10/1 |
|-----------------------|------|------|------|------|------|------|------|
| 750 | 2 | | 2.05 | 2.12 | 2.19 | 2.24 | 2.34 |
| 800 | | 2.07 | 2.1 | 2.15 | 2.25 | 2.37 | |
| 850 | 2.08 | 2.14 | 2.2 | 2.28 | 2.35 | | |

FIG. 48C

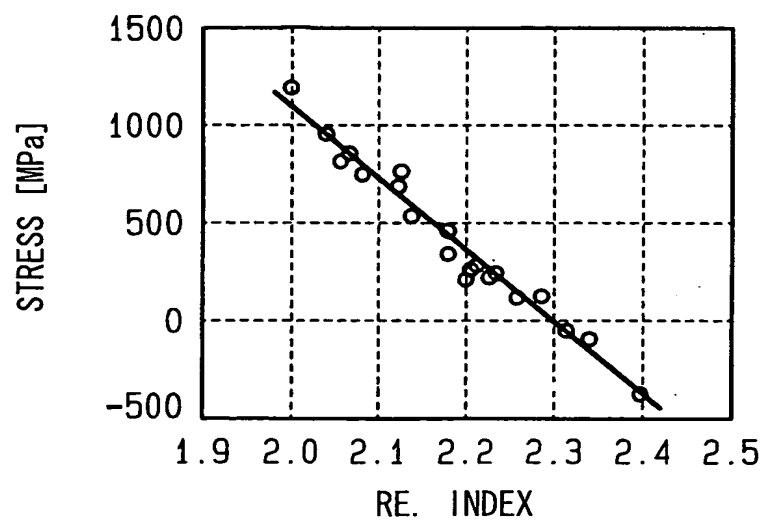


FIG. 49

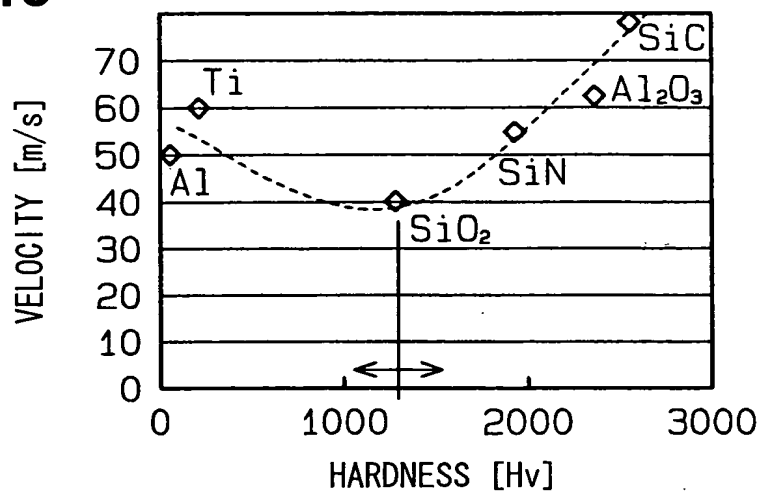


FIG. 50

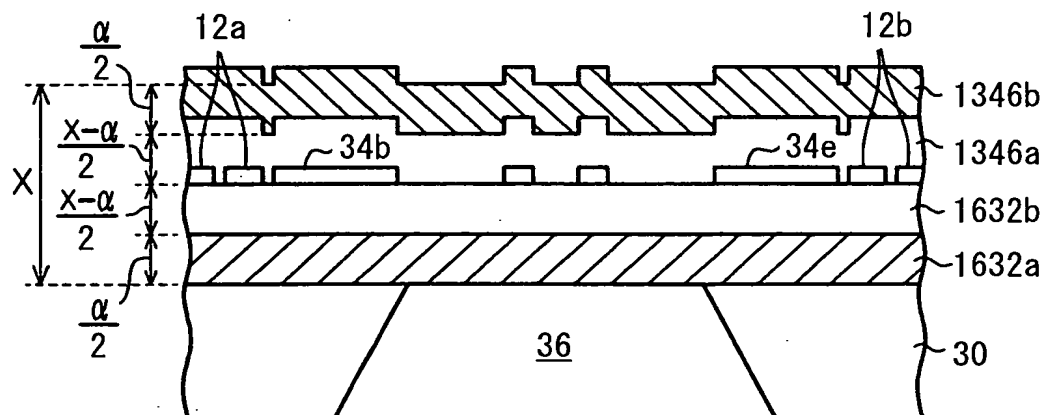


FIG. 51

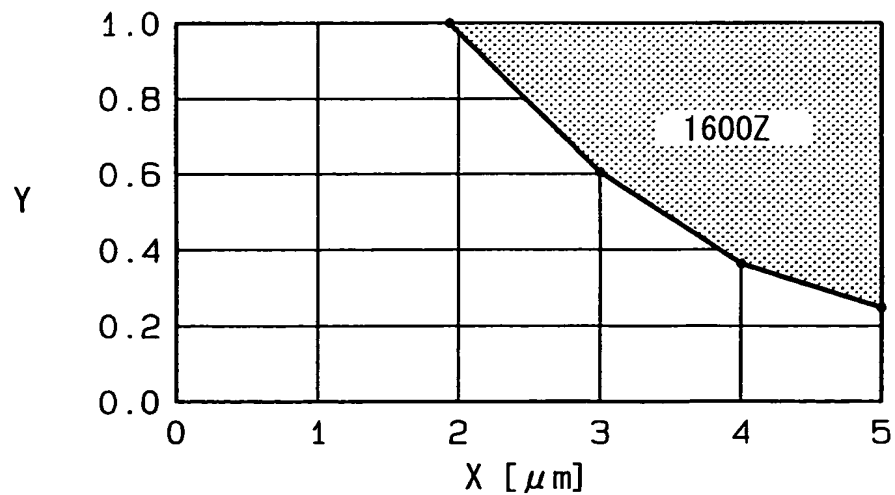


FIG. 52A

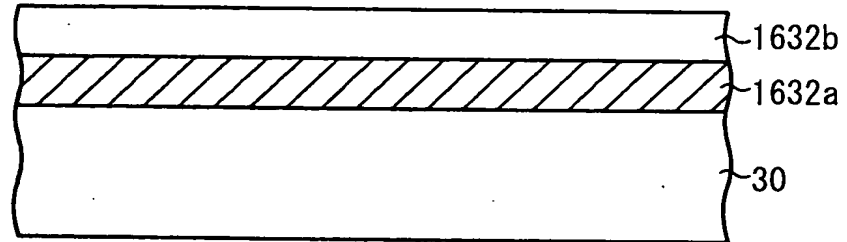


FIG. 52B

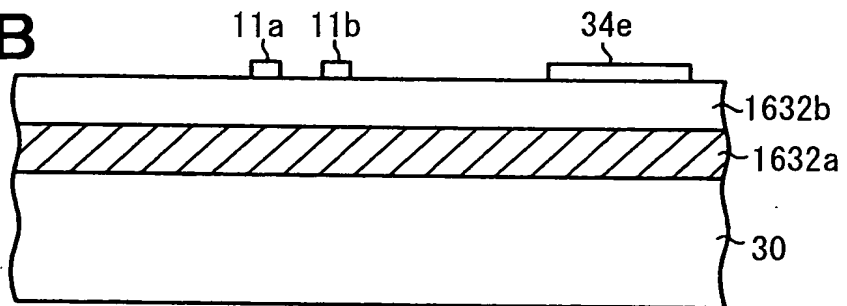


FIG. 52C

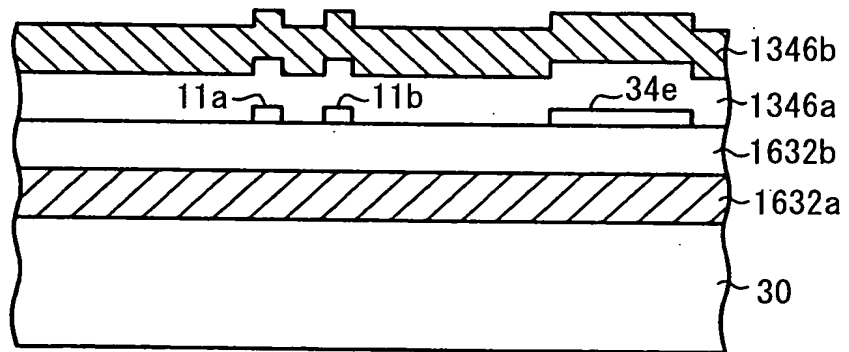


FIG. 52D

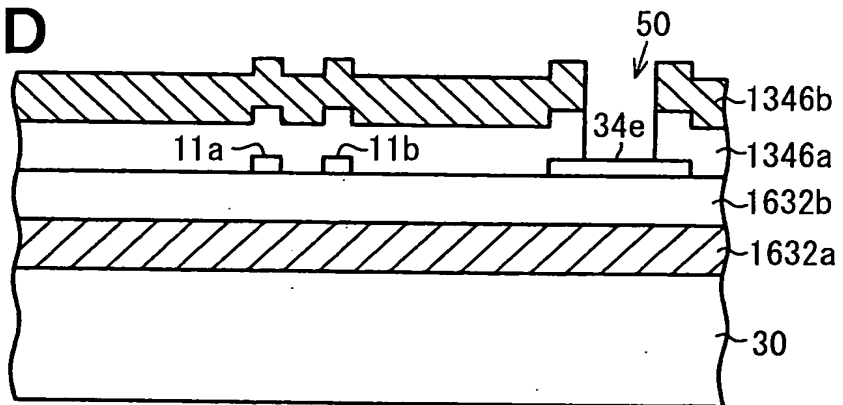


FIG. 53

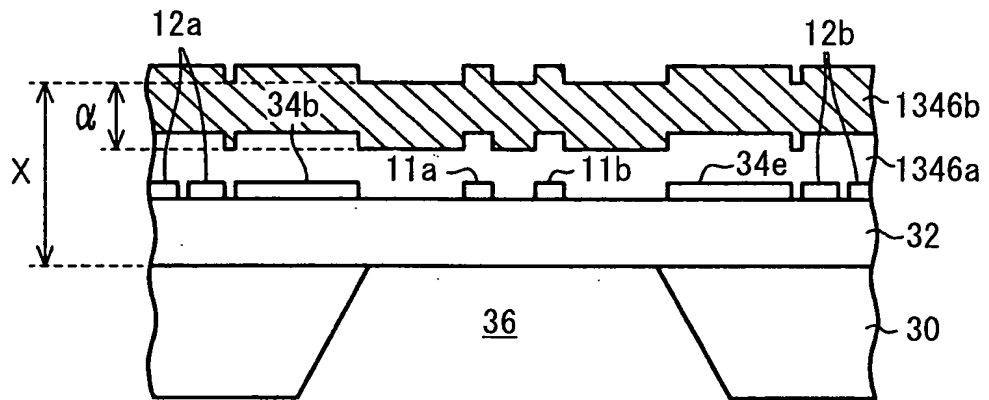


FIG. 54

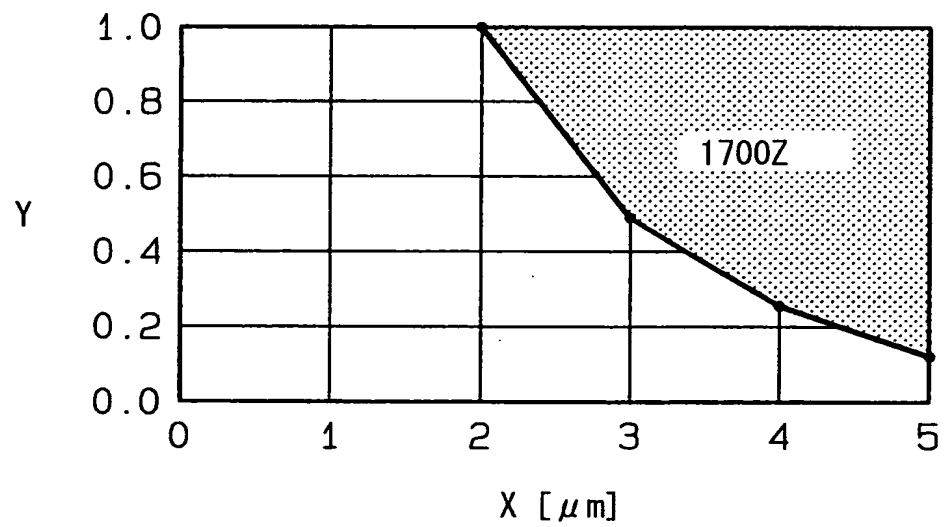


FIG. 55A

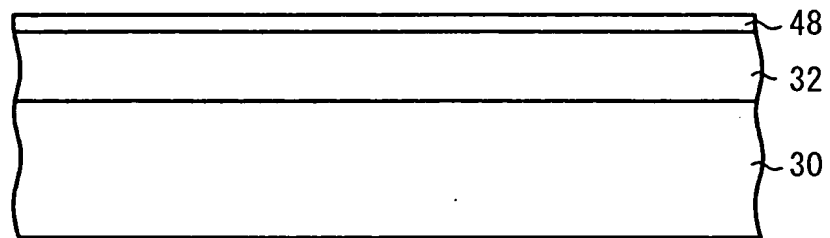


FIG. 55B

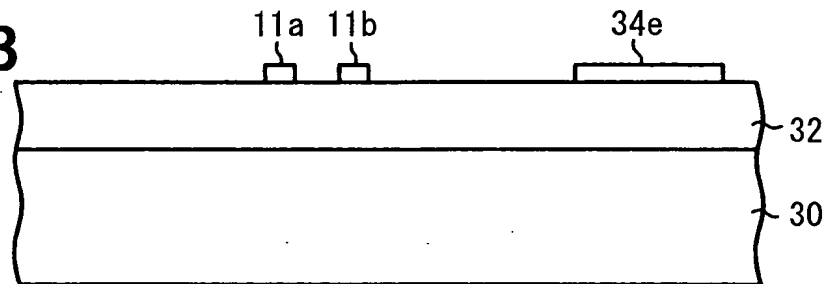


FIG. 55C

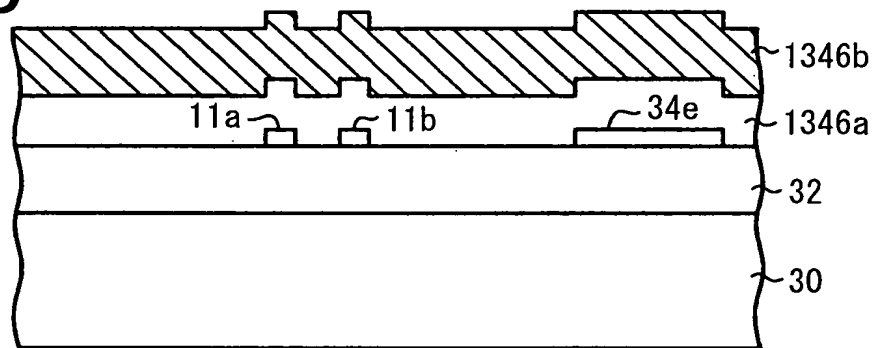


FIG. 55D

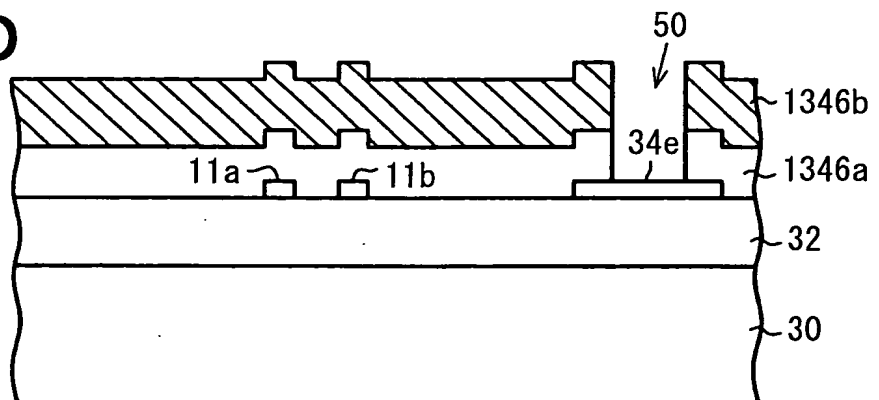


FIG. 56

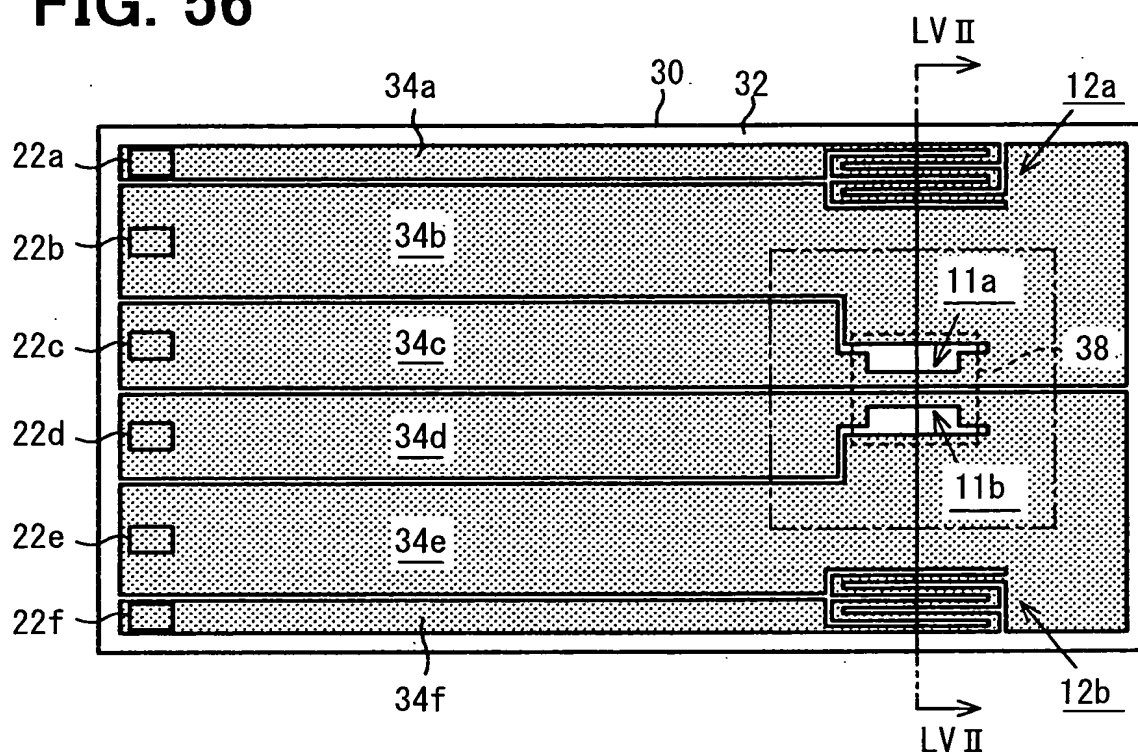


FIG. 57

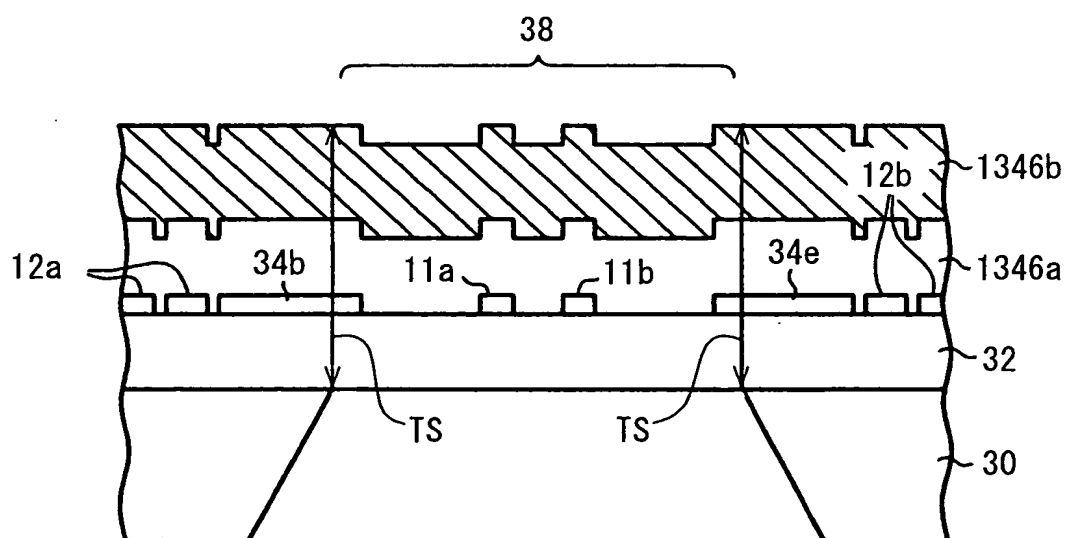


FIG. 58A

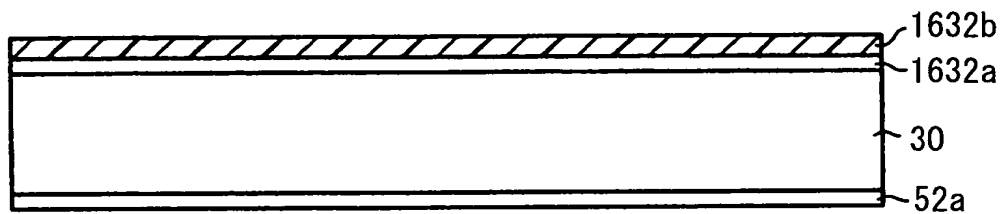


FIG. 58B

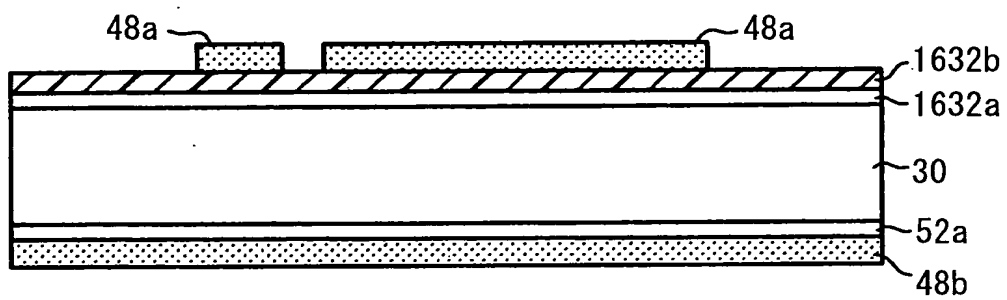


FIG. 58C

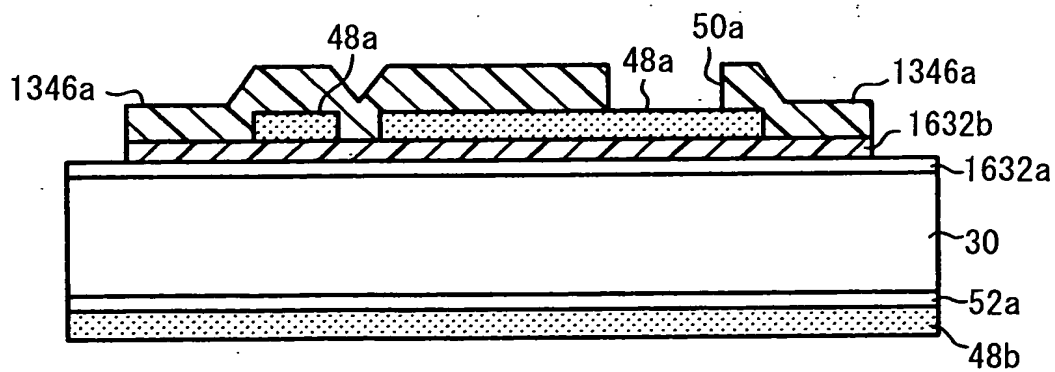


FIG. 59A

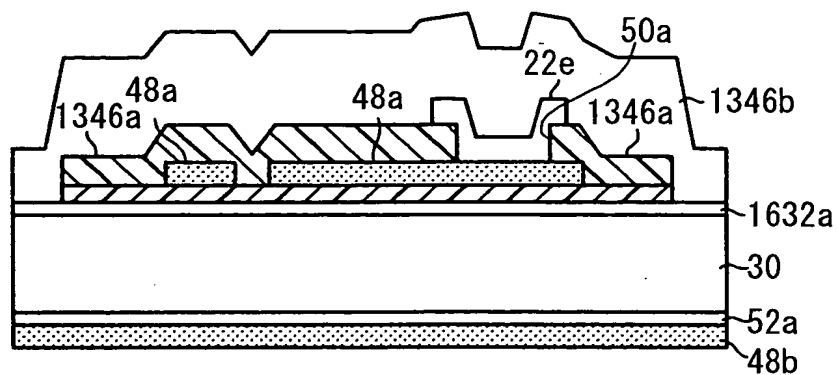


FIG. 59B

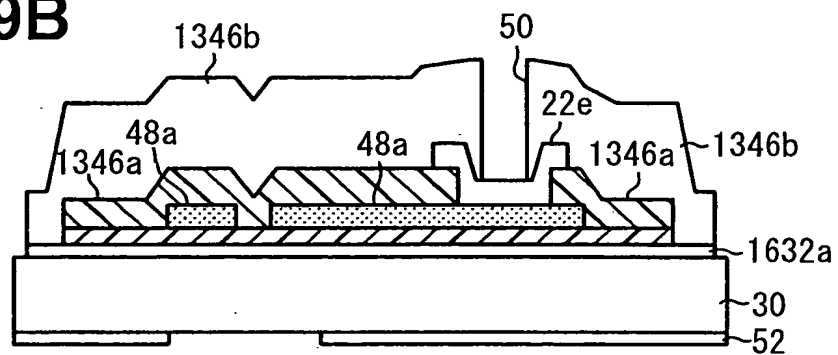


FIG. 59C

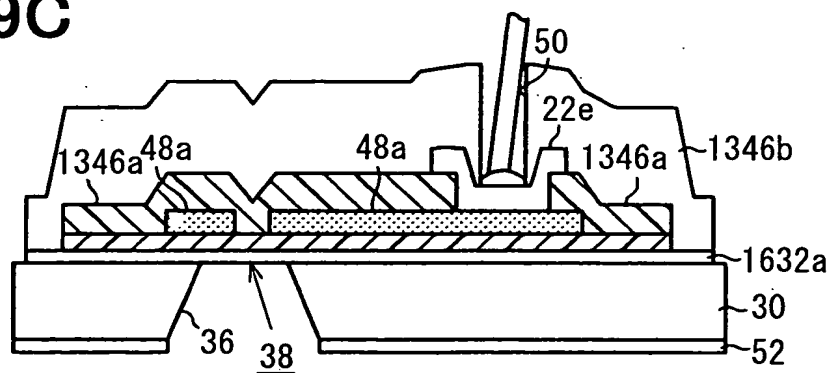


FIG. 60

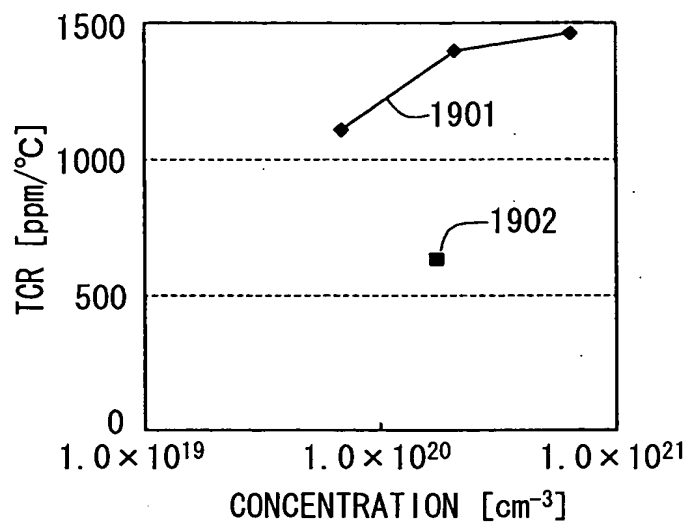


FIG. 61

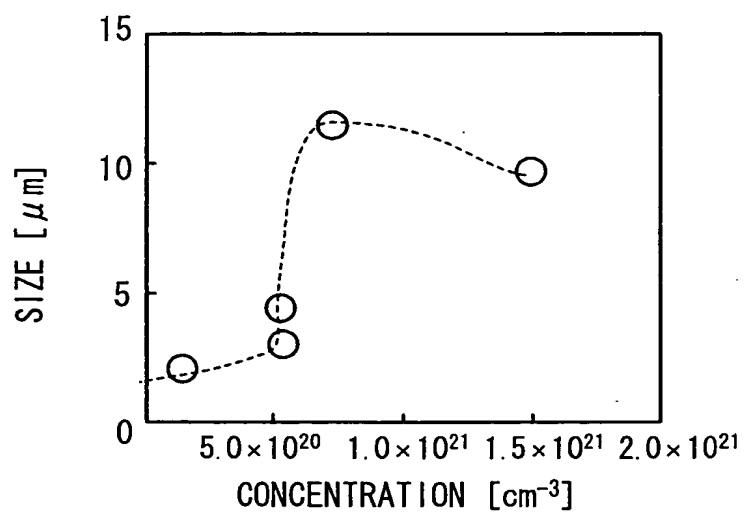


FIG. 62

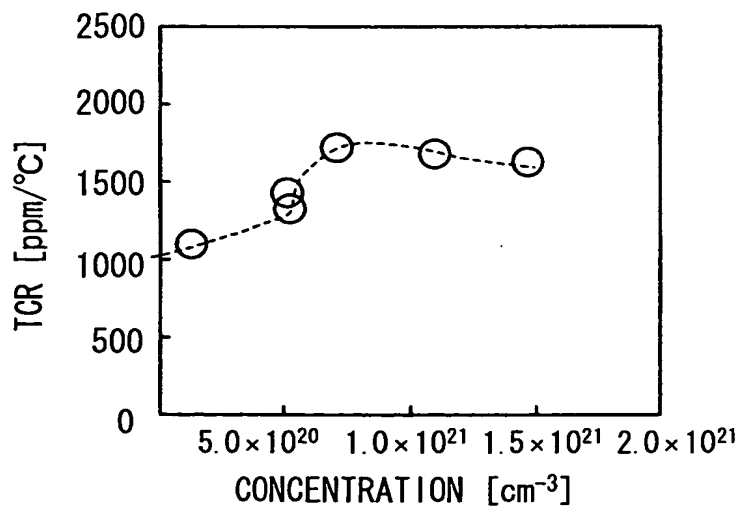


FIG. 63
PRIOR ART

